5-2009

Into the unknown: Military nurses' experiences in disaster response

Felecia Marie Rivers
University of Tennessee

To the Graduate Council:

I am submitting herewith a dissertation written by Felecia Marie Rivers entitled "Into the unknown: Military nurses' experiences in disaster response." I have examined the final electronic copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Nursing.

Susan Speraw, Major Professor

We have read this dissertation and recommend its acceptance:

Accepted for the Council:

Carolyn R. Hodges

Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)

To the Graduate Council:

I am submitting herewith a dissertation written by Felecia Marie Rivers entitled "Into the Unknown: Military Nurses' Experiences in Disasters Response." I have examined the final electronic copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Nursing.

Susan Speraw
Major Professor

We have read this dissertation
and recommend its acceptance:

Kenneth Phillips

Jan Lee

Kurt Piehler

Acceptance for the Council:

Carolyn R. Hodges
Vice Provost and Dean of the
Graduate School

(Original signatures are on file with official student records).

“Into the Unknown”: Military Nurses’ Experiences in Disaster Response

Presented for the

Doctor of Philosophy

Degree

The University of Tennessee, Knoxville

Felecia Marie Rivers

May 2009

DEDICATION

This dissertation is dedicated to the military nurses who gave of themselves mentally and physically during disastrous events in the care of others and themselves and in sharing their stories with me.

ACKNOWLEDGMENTS

I would like to sincerely thank all the military nurses who participated in my study. Without your interest in the research and courage to relate your stories, we would not know what you endured or what stood out to you regarding disaster responses. A special thank you is given to those who shared personal pictures and Power Point presentations; these visually illuminated your experiences and added depth to the research.

To Dr. Susan Speraw, for the countless hours spent in assistance beginning with the TriService Nursing Research Grant Proposal and throughout the duration of the study with analysis and suggestions for revisions, your expertise is greatly appreciated. I applaud your dedication and support of disaster education and disaster preparedness.

To Dr. Kenneth D. Phillips, Dr. Jan L. Lee, and Dr. G. Kurt Piehler, for the time spent in reading and editing the manuscript. Your helpfulness will not be forgotten.

To Lauren Loberg, for the courage to read the extremely long passages in my transcripts during Phenomenology group. Your assistance and support in developing the thematic structure was most appreciated.

To my husband and best friend Talon, your love, support, and numerous driving hours, helped to make a long and arduous journey successful.

Last, I would like to thank the TriService Nursing Research Program and Sigma Theta Tau Gamma Chi Chapter for grants to support the research.

ABSTRACT

Frequently, military nurses are among the first responders to render aid following disaster events. Research has been completed regarding military nurses' experiences in combat, but little has been done to examine nurses' perspectives on their disaster response. The purpose of the study was to understand military nurses' experience of responding to disaster(s), with "disaster" defined as any non-combat mission—humanitarian relief, or response to a natural or human-made event—outside of warfare.

A phenomenological approach to interviewing 23 military nurses was employed. Using a purposive, snowballing technique, single face-to-face interviews were conducted.
Five figural polar themes of Nature of War v. Nature of Disaster, Unknown v. Known, Prepared v. Making Do, Structure v. Chaos, and Being Strong v. Emotionality and a final theme of Existential Growth emerged from their stories against the contextual grounds of Organized Military Culture and Disaster Experiences. The participants' experiences were concentrated in the world of others.

As the participants moved into the disaster arena, they became a cohesive unit, leaning on one another through the hardships and the good times. Often, the nurses performed tasks outside of the typical scope of nursing. The participants related that no one could understand what a disaster involves unless they have been there and engaged in a disaster response. Nurses related a sense of loss, a reshaping of thoughts about disaster events, and a new appreciation of how people's lives are totally disrupted, which led to feelings of being fortunate and blessed.

Many nurses indicated this was the first time they had reflected on their disaster experience and considered what it meant to them. The knowledge gained from this study adds to the disaster nursing literature and that of military studies. The study indicates a need for changes

in nursing education, practice, training, policy, and recommendations for higher education. Several final suggestions addressed how the military may better educate and take care of its own.

Recommendations for future research include qualitative studies of disaster experiences with civilian nurses and Disaster Management Assessment Teams, experiences of coping in disasters, and existential growth following disaster responses.

The study was funded by the TriService Nursing Research Program and the Gamma Chi Chapter of Sigma Theta Tau International Honor Society of Nursing.

TABLE OF CONTENTS

List of Tables Page

ABBREVIATIONS

AAR	After Action Report
ACAAR	Arlington County After-Action Report
AMEDD	Army Medical Department
AMEDD C&S	Army Medical Department Center and School
ANC	Army Nurse Corps
APFT	Army Physical Fitness Test
AWOL	Absent Without Leave
CBRNE	Chemical, Biological, Radiological, Nuclear, and Explosive Incident
CCC	Captain Career Course
CDC	Centers of Disease Control and Prevention
CERC	Crisis and Emergency Risk Communication
CINAHL	Cumulative Index to Nursing and Allied Health Literature
CNYMR	Central New York Medical Reserve Corps
CF	Compassion Fatigue
CSH	Combat Support Hospital
DMAT	Disaster Management Team
DOD	Department of Defense
DSCA	Defense Support of Civil Authorities
DSMPTSD-IV	Diagnostic and Statistical Manual of Mental Disorders IV Post- Traumatic Stress Disorder
EMS	Emergency Responders
ERIC	Educational Resources Information Center

FEMA	Federal Emergency Management Agency
HSN	Homeland Security Nursing Program
IDF	Israel Defense Force
IV	Intravenous
JCAHO	Joint Commission on Accreditation of Hospital Organizations
MRE	Meals-Ready-to-Eat
NG	Nasogastric
NLN	National League of Nursing
OB/GYN	Obstetrics and Gynecology
OBLC	Officer Basic Leadership Course
PTSD	Post-Traumatic Stress Disorder
TDY	Temporary Duty
TNCC	Trauma Nurse Care Course
UCMJ	Uniform Code of Military Justice
U. S.	United States
WTC	World Trade Center

CHAPTER 1

INTRODUCTION

I am a nurse in the United States (U. S.) Army, but I am, and always will be, a soldier first. This simple statement has complex meaning. As I begin this discussion of my dissertation work, it is, I believe, important for the reader to first understand the world in which I live, the culture of the military, and the way in which my military world view has shaped this research. Therefore, this chapter will begin with an overview of military culture and my place as a person within it. This will be followed by a discussion of how my military experience became a prelude to the current research. It will culminate with a discussion of the influence of the Homeland Security Nursing Program as a bridge between my military experience and research interest.

Overview of Military Life

Military members operate within the constraints of military protocols and guidelines. As such, military life is a hierarchal, structured environment where communication and information flow downward from the higher echelon.

One element of military structure that is familiar to the general public is rank. Titles assigned to these levels of hierarchy differ from one service branch to another, but in all military divisions criteria for evaluation of rank follows a clearly defined structure divided into two major categories: enlisted and officers. In the military members look to their leaders for guidance and trust them to provide for their safety and welfare.

Military members are responsible to their unit 24 hours a day, seven days a week, and 365 days per year; must maintain a constant state of readiness; and are subject to military recall at any time day or night. When an alert (recall) has been initiated, the

member commonly has 45 minutes to sign in to the unit with military bags, ready to deploy, should the need arise. Even when ill, military members are not allowed to call in sick or avoid such recalls.

Military training is aimed toward a wartime mission. All military members have certain soldier skills that must be learned and practiced throughout their military careers. These skills include, but are not limited to weapons qualifications, weapons maintenance, land navigation, compass, and map reading, reacting to enemy fire, defending the perimeter of the field site against potential enemy infiltration, donning and wearing of protective gear, and moving in a squad element across the terrain. Within the context of this culture, the military nurse is found.

Being a Military Nurse: A Personal Perspective

For the last 23 years, I have served in the United States Army. The latter 13 years have been spent as a member of the Army Nurse Corps (ANC). As a member of the military, I live to serve and protect this great country in which we reside. I am the last line of defense between freedom and those who would take that away. I place myself in harm's way in order for others to remain safe. Within the broad military culture, I live out my roles in national service and protection as an Army nurse.

My journey in the military began with an oath of office, an oath that will never end even after my discharge from service:

> "I, Felecia Rivers, do solemnly swear that I will support and defend the Constitution of the United States against all enemies, foreign and domestic; that I will bear true faith and allegiance to the same; that I take this obligation freely, without any mental reservation or purpose of evasion; and that I will well and faithfully discharge the duties of the office on which I am about to enter. So help me God." (U. S. Code: Title 5, Section 3331).

The military is my vocation. Making the military my life-long work was a choice. For me, joining the military was not merely a temporary, short-term experience, or a career that could be arbitrarily changed if the hours were long or the pay was not what I would like. As is true with any committed way of life, I work at honoring my oath of service every day. Because I am a regular Army officer, my oath was a commitment for life. Even after my active duty service is ended and I have retired, if the need arose, I could be called back to active duty at any given time.

Routinely, in my nursing capacity I work in a hospital or clinic similar to my civilian colleagues, providing care to soldiers, their family members, and retirees. Additionally, in my soldier role, I have a wartime mission. My clinical skill training not only prepares me to provide routine health care, but also is aimed toward succeeding in a combat role. Often, I may practice my skills in a field type venue, rehearsing scenarios that may be applicable to the wartime mission. As a military nurse, my main combat goal is to "conserve the fighting strength" of the soldiers, to practice preventive care to maintain physical and mental well-being at a level adequate for service, or restore wounded soldiers to health so that they can return to the field. During combat, health care is provided as quickly as possible and soldiers are either returned to their units or medically evacuated to higher echelons of care. A secondary combat mission is to provide care to enemy prisoners of war. Yet, even in my nursing capacity, I must still maintain the warrior mindset as I am the last line of defense in protecting the lives of those who are ill or injured should the hospital become overrun in combat.

Everything in my life is very structured. My life is not my own. Examples include mode of dress, physical appearance, and travel. I proudly wear a military uniform that

must meet military regulations for placement of rank, insignia, and military decorations. I am not allowed to wear earrings except with my dress uniform and they must be a certain size and type. Make-up and fingernail polish must complement the uniform. If I wear any type of pins or barrettes in my hair, they must closely match my hair color. My hair is not allowed to touch my shoulders; it must either be worn short or pinned up in such a way that does not interfere with the proper wearing of the required headgear.

I am subject to the Uniform Code of Military Justice (UCMJ). Therefore, I must maintain a certain weight in conjunction with my gender, age, and height. If I fail to meet the standards, I will receive a counseling statement from my immediate supervisor and possibly the commander, be sent to nutritional counseling, placed on remedial physical training, and given a certain timeframe to meet standards. If I do not successfully lose the weight, I may receive UCMJ action and be discharged. If I am successful, I must maintain the weight loss or risk disciplinary action. Twice a year, I must pass an Army physical fitness test (APFT): failure results in disciplinary action and over time may result in discharge from the military. I am expected to persevere, be strong.

Travel is another area that is tightly controlled. I cannot travel more than 50 miles outside my duty station without some form of authorization. Should I do so I could be considered absent without leave (AWOL) particularly should an alert occur resulting in deployment and I was not able to be reached. In order to travel outside of 50-mile radius, I must either be on leave, pass, temporary duty (TDY), or permissive temporary duty which covers travel that is not ordered. While traveling to conduct interviews for this research, I had to submit a request for permissive TDY for each trip I took. The military required an address for my lodging, phone number by which I could be reached, and

method of travel for the trip. If I was flying, an itinerary had to accompany the request. If I was driving, I had to complete a risk assessment and add it to the travel request. Leave is generally taken for vacations and when an individual is moving from one duty station to another. The same documentation mentioned for the permissive TDY must accompany the leave request. The purpose of these travel constraints is to promote accountability.

Although the civilian world may find it hard to comprehend how one could accept such regulation, it must also be pointed out that there are balancing "positives" that one gains by being part of the military. As long as I serve honorably, I have no concerns regarding job security; my income is guaranteed and the pay and benefits are substantial. Not only am I provided a monthly salary, the military supplements my basic income with monies for food and housing expenses. An additional benefit is health care. My family and I receive health coverage, which includes medication at no cost. In some areas, dental care is also provided for family members free of charge. The educational advantages warrant mention. The military has paid for all of my nursing degrees to include the current academic work. They even provide supplemental funding for books. I have had the opportunity to visit many different places around the world at the expense of the military. I have been assigned to units in Germany twice and Hawaii. While in these countries, I have had the opportunity to learn about the different cultures, tour the areas, and visit places I would not have been able to afford, if not for my military career.

I cannot begin to describe the importance of the military family. They are a unique group of individuals who support one another. This extraordinary community includes not only the military members, but the spouses as well. Should my colleagues and I deploy; the significant others, who stay behind, help and encourage one another

until our return. Whenever my family and I move to a new unit, there is always another nurse assigned to help us transition into the community.

It must also be said that there is a sense of security that I feel knowing that I am part of this larger organization. As a soldier, my bags are packed and always ready to go. There is peace of mind that comes with the confidence that should I deploy, military spouses will network to support my family through times of stress and uncertainty. This structure better enables my husband and family to support me in my military service.

In many ways, I would feel lost without the organization and find it very difficult to consider living outside of the military environment. Even though I have cherished the time I have spent in my long-term health education training, I am looking forward to returning to the military culture at the conclusion of this research. There are days when I yearn for those who speak my language and understand the military mindset. I am very proud of the commitment I have made, the uniform I wear, the health care I provide to military families, and the service I give to my country.

The Military Experience as a Prelude to this Research

Two experiences, both taking place within this larger military and career context, have spurred my interest in this research. One was a direct, personal experience responding to a training-related accident that had many characteristics of a disaster, and the other was my perception of the events surrounding the terrorist attacks on the World Trade Center on September 11, 2001.

Not many years ago, my Army nurse colleagues and I were in the second week of a 30-day military training exercise in a region where the days were humid and hot, while temperatures dropped drastically after sunset. Suddenly we were awakened by the loud

speakers blaring, “Real World! Real World!” Those words could only mean one thing, something had really happened during the exercise, and probably there were incoming injuries. We hurriedly grabbed our gear and headed for the trauma tent. A quick brief from the chief nurse informed us that approximately 20 soldiers participating in the exercise had missed their drop zone, landing near the swamps. It was cold; the soldiers were down, maybe in the water. Swiftly, we grabbed blankets, medical supplies, and other needed equipment. As we headed to the disaster, we had no idea what we would find when we arrived. How many were actually in the water? How long had they been exposed to the elements? Had any landed in the surrounding trees? These questions were among many that passed through our minds.

After we located the soldiers at the alternate site, we quickly assessed them. Fortunately, the injuries were few. All were wet and cold, with minor bruising and abrasions. The soldiers were reassessed as they entered the combat support hospital, provided dry pajamas, food, and water. On this particular day, for this event, all were well; the soldiers were safe.

Though small in scope, with a positive outcome, this disaster response was an eye opening experience, a real event, not just an exercise. As an Army nurse, I came to a realization. Disasters are unexpected events that can occur anywhere, even during a training exercise when everything is supposed to go right, and when it happens, it catches one off guard.

In my reflections about September 11, 2001, I see how those events shaped my interest in this research. That morning, which came during my master’s degree program, I was at home studying when I received a call from my husband telling me to turn on the

television. What I saw in those next few moments I will never forget: the initial plane hit the World Trade Center. I said, "What happened? Did something go wrong with the plane?" I had a very bad feeling. As we were talking, the second plane struck the towers. I quickly realized it was not accidental. When the third highjacked plane pummeled into the Pentagon thirty-four minutes after the crashes into the World Trade Center, I knew we were under an attack on our homeland. As I watched the chaos, I thought to myself, "What will happen next?" Sitting in my living room, I suddenly felt extremely vulnerable and the skies became unusually quiet.

I am trained to respond to war, but at that precise moment, I did not feel prepared for something of this magnitude. In addition, I had friends, fellow ANC officers, stationed at the Pentagon, and at Walter Reed Army Medical Center. I was concerned for their safety. Later, I spoke to one of the ANC officers. The officer shared with me several things that were encountered by those who responded to the Pentagon: the smells of jet fuel and burning flesh, and the disorder that was witnessed. That officer only confirmed my worst fears, observing that it would be difficult for anyone to be prepared for such a traumatic event.

Homeland Security Nursing Program: Bridge between Military Experience and Research

I had already planned to return to a university setting for a Doctor of Philosophy degree in Nursing. As I searched the curricula of the different universities, I found a university that offered a unique degree that would satisfy my desire for a PhD and my wish to learn more about preparation for disaster response: the Homeland Security Nursing (HSN) Program at the University of Tennessee, Knoxville.

As I became engaged in the studies of the HSN program, thoughts regarding the September 11 attack and my military training once again surfaced. I became acutely aware of how different war and disaster actually are. I quickly came to a realization these differences must be examined. I needed to talk to nurses who had responded to disasters and garner the knowledge of their experiences. Therefore, the purpose of my research efforts was two-fold: a) to explore and document the nurses' experiences and b) to assist the military to better train and meet their needs for the future.

As previously mentioned, in the ANC, we are specifically trained to respond to war even though there is a high probability for non-combat, disaster related deployment. Given this discrepancy between what we are trained for, and what we may actually be called upon to do, I often wondered if there was additional training available to us, something directed specifically toward disaster response. My questions led me to a search, which uncovered a number of interesting facts; all were corroborated by those in senior leadership positions:

- The Chief Nurse of the Army Medical Department Center and School (AMEDD C&S), reinforced our Army commitment to preparation for military conflicts, but also mentioned several courses that provided some training applicable to disaster response including the Trauma Nurse Care Course (TNCC), which is incorporated into the Officers Basic Leadership Course (OBLC) and the Captain Career Course (CCC). However, other disaster response courses, such as "Basic Disaster Life Support," "Advanced Disaster Life Support," or disaster-related Vulnerability Assessments are not presently available (P. Patrician, personal communication, April 5, 2007). COL Patrician elaborated acknowledging that all the Nursing

Corps Chiefs note that lack of preparation for disaster response as a significant issue (P. Patrician, February 22, 2008).

- From MAJ Solet-Lindsey, the Nurse Liaison of OBLC & CCC, I learned that a basic Chemical, Biological, Radiological, Nuclear, and Explosive Incident (CBRNE) course is provided in the OBLC. This seminar introduces the new officer to the knowledge to be able to recognize and react to weapons of mass destruction. An additional class, the Provider Resiliency Training is taught in both OBLC and CCC. This course is designed to present instruction in dealing with combat stress, the management of personal life stress, as well as coping with stress in others. MAJ Solet-Lindsey felt this knowledge would be applicable in dealing with the stressful environment often encountered within the disaster arena (P. Solet-Lindsey, personal communication, February 20, 2009).
- The CBRNE course is an annual requirement for all civilian and military health care providers working within the different military facilities across the military branches.
- According to COL Ford, Chief Nurse, Army Forces Command, there is a Department of Defense (DOD) level course entitled the DOD Defense Support of Civil Authorities (DSCA) Course (COL Ford, personal communication, February 3, 2009). The course focuses on training senior military officers, DOD civilians, and their staff to ensure the DOD's readiness to support its Homeland Defense and Civil Support missions. The course provides attendees information relating to National, State, Local, and DOD statutes, directives, plans, command and control

relationships, and capabilities with regard to disaster and emergency response. (Defense Support of Civil Authorities, 2005).

In approaching the design of this research, I kept in mind the knowledge gleaned from my studies in the HSN and my real-world experience. Out of those elements in my education, I had come to anticipate that while many of the same skills would be utilized in both combat and disaster, the preparation time for deployment would be quite different. I knew that planning for wartime deployment begins several months prior to actual departure, but in contrast, deployment for disaster response needs to occur within 48 to 72 hours to be effective, shortening the time for preparation. Furthermore, the pace during the two deployments would be different. Combat care in a wartime environment resembles of a non-combat environment unless we are receiving wounded. There is continuous concern for health and safety, which adds to stress and anxiety. However, while shifts are long, often times there are opportunities to break away, to talk to colleagues, and time to relax.

In disasters, the pace of care is more urgent, without thought to the number of hours worked. There may not be time to break away initially, to relax and regroup. Concern for personal health and safety may still be feasible, but is not assured. Stress and anxiety are constant issues that warrant attention. All these realities have implications for training military nurses to respond to disasters, and would certainly present challenges in offering them emotional support during disaster events and after their return.

But, these were my own hunches, and I wanted to know what other military nurses felt about disaster responses. Thus, my journey began. I became very interested in

the stories of military nurses. I wanted to know what the experience of participating in a disaster meant to them.

There are many anecdotal articles regarding lessons learned from disasters or offering thoughts about preparation. However, the problem is that very little research, particularly qualitative work, has been completed regarding military nurses and their experiences of responding to a disaster. In an initial literature search, only two dissertations were found that related to military nurses in missions other than war, such as humanitarian relief. The voices of military nurses who have responded to disasters need to be heard.

The remainder of this chapter presents the statement of the problem, purpose of the study, and research question, operational definitions, assumptions, delimitations, limitations, and exclusions, philosophical stance, followed by the summary.

Statement of the Problem

Disasters occur frequently around the world. No city, state, or country is immune to the possibility of a disastrous event. Reflecting on American history of the 20th and early 21st century, there have been numerous accounts of terrorism, beginning with the dynamite explosion on Wall Street in 1920; followed by the truck bombing of the 1993 World Trade Center; 1995 Oklahoma City blast; destruction of U. S. embassies in 1998; and the USS Cole devastation in 2000; and, in 2001, the occurrence of the attack on the World Trade Center and the Pentagon. Furthermore, we must not fail to remember the destruction perpetrated by multiple natural and accidental disasters throughout the last century. The devastation wrought by Hurricanes Katrina and Rita during the 2005

hurricane season in the U. S. and the aftermath of tsunamis and earthquakes that have struck parts of Asia in recent years. Failures of the resulting response efforts to these natural events will be remembered for years to come.

Historically, disaster relief within U. S. borders has been considered a local responsibility, with the federal government providing assistance when local and state resources are exhausted. Public Law 81-875, the Federal Disaster Act of 1950, was the nation's initial attempt to establish regulations governing disaster response (Carroll, 1996). Under this law, the President is authorized to provide federal assistance to state and local governments suffering from disasters.This groundbreaking legislation laid the foundation for the use of military aid for disaster response.

Writing about the 1988 Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), Carroll (1996), explains that the purpose of the litigation was to define the role of the Department of Defense in deploying military assets in disaster response. According to Abbott and Hetzel (2005), the 2004 revision of the Stafford Act, provides authorization for military units to be deployed to support disaster response efforts including logistics, surveillance, sanitation, and medical support. Since these acts have been written, federal health care providers, specifically military nurses, have increasingly been present during domestic disaster events to render care to those injured.

Military units participate in missions that promote peace and alleviate human suffering, including disaster relief, national assistance, international humanitarian assistance, and assistance to civil authorities. Of all the missions that include military nurses, perhaps the one about which we know the least is disaster response; yet, disasters

have continued to occur with increasing frequency around the world and in many of these calamities, the military has either deployed nurses or been on alert, ready to respond if needed.

Research has been completed regarding nurses' experiences in combat, but little is known about military nurses' experiences in disaster response and how to provide for their well-being. Many questions arose as I began preparing for this research. How did we know if we were doing enough to assure for the welfare of military nurses responding to disasters if we did not ask them? What could they tell us that could feasibly enhance their preparation for disaster deployments; their health and safety during deployment; and their support after their return? No one could be better equipped, or more expert, in telling us about their disaster experience than those who had been there. This study was therefore, conceived to allow military nurses to share their stories. As a result, we have a better understanding of what disaster response entails told to us through the voice of the experts. This study adds to the practical knowledge regarding effects of the disaster, response actions, readiness, and training needs of military nurses who have responded in to disasters in the past, and can help us better prepare to assist those who may respond to disasters in the future.

According to Lofgren (2006), a military historian, the armed services have long recorded and preserved their histories through the conduct of qualitative research. In the past, Lofgren noted that oral history methods have been most often utilized as a research method, and have focused on documentation of events as they unfolded. In this way, chronology has been recorded, and the roles of military leaders in battle have been detailed.

Similarly, the roles of military nurses in providing care during combat was documented through the efforts of a nurse researcher, Norman (1990) who conducted interviews with 50 nurses across the different military branches. Through her works, we learned of the differences in training among the specific military branches, the lack of needed preparation and significance of camaraderie during traumatic times.

Likewise, from the field of traumatology, Figley's (1995) work has documented the concerns of secondary trauma in health care providers during catastrophic times. He related how health care providers take on the emotional burdens of victims of crises by listening to the individuals' stories as the nurses render care.

This current research adds to the previous aforementioned works; but took a different methodological approach, utilizing a qualitative, phenomenological method to understand the essence of military nurses' lived experiences in responding to disasters.

Purpose Statement

The aim of this study was to gain an understanding of the essence of military nurses' experiences in responding to disasters. Their stories needed to become a part of recorded history in the discipline of military nursing, thus adding to the body of knowledge regarding disaster response and influencing how we prepare for future disaster response efforts.

Research Question

One research question drove the research: "What is the experience of military nurses during and/or following a disaster response?"

Operational Definitions

- **Disaster:** any non-combat mission humanitarian relief, or response to a natural or human-made event—outside of warfare, to which military nurses are deployed. *Disaster is not warfare or battlefield combat*. It has also been defined as "an event concentrated in time and space, in which a society or one of its subdivisions undergoes physical harm and social disruption" (Kreps, 1998, p. 32). Another definition from the realm of sociology, characterizes a disaster as a state of uncertainty, which renders a community vulnerable to the elements (Gilbert, 1998). The World Health Organization adds that a disaster is a "situation where the normal means of support and dignity of people have failed as a result of a natural or man-made catastrophe" (*World Health Organization*, 2002, p. 1). Disasters are categorized as natural or human-made. Natural disasters are environmental devastations that are unpreventable and uncontrollable. These disasters are normally acute in onset. Characteristics of natural disasters are destruction to property, economic productivity, natural resources, and the environment. Furthermore, natural disasters may result in human suffering and death. Examples of this type of disaster are tornadoes, earthquakes, hurricanes, floods, tsunamis, volcanoes, landslides, wildfires, and droughts (Landesman & Veenema, 2007). A second category of disaster is that of human-made disasters. These disasters are a direct result of destruction caused by a human being, whether intentional or accidental. Acts of terrorism, not associated with combat, can also be included in this category. Explosions, transportation accidents, chemical spills, and radiological/nuclear accidents are examples of this type of

disaster. Overall, the effects of disasters may lead to premature death, damage the local health infrastructure, interfere with routine health care provisions, and influence psychological, emotional, and social well-being (Veenema, 2007). Oftentimes disasters force the migration of people as demonstrated during the 2005 hurricane season. These groups of people require disaster response efforts as much as those who remain at the site of destruction.

- **Disaster Response**: refers to "activities that address the short-term, direct effect of an incident. Response includes immediate actions to save lives, protect property, and meet basic human needs" (*National Response Plan*, 2004, p. 72). Additional outside help may be needed to assist in the disaster response.
- **Deployment:** Frequently military units will provide the supplemental aid. The term "deployment" refers to the movement/relocation of soldiers (nurses) and supplies in support of a military mission (*Department of Defense Dictionary*, 2006). According to Yoder and Brunken (2003), military missions may include activities that promote peace and alleviate human suffering such as disaster response. Disaster deployments and skills may vary; however, the experiences are important, providing practice in casualty management, which may be utilized in wartime conflicts (D. Kenny, personal communication, November 7, 2006). In the military, there are two ways nurses can be deployed to disasters. One is to volunteer in response to a call for professional help. The lengths of these deployments vary. The second type is duty related and occurs in direct response to military orders. These also vary in length according to the nature of the mission.

For purposes of this study, nurses' deployment events can have been either voluntary or ordered. It is *not* combat.

- **Military Nurse Responders:** nurses in the Army, Air Force, Navy, or the U. S. Public Health Services. Additionally, the responders may be active duty, reservist, National Guard, or retired.
- **Experiences:** the full realm of sensory, cognitive and emotional perceptions that constitute the reality of each person's encounter with disaster.

Assumptions

The following assumptions pertain to the study: (1) Military nurses are deployed to non-war areas to render care such as disasters. (2) There is meaning in the experiences of the military nurses that would confer knowledge for future disaster responses. (3) The experience of disaster deployment is important at face value regardless of the information that emerges from the military nurses' stories.

Delimitation, Exclusions, and Limitations

This study was delimited to English speaking U. S. military nurses, over the age of 21, either male or female, and who had the experiences of responding to at least one disaster. U. S. military nurses of any race, culture, or military branch were considered for participation in the study. Additionally, the military nurses were drawn from active duty, retired, reservist, or members of the National Guard. The length of time from disaster response to interview was not limited. The same was true for the number of military years served or the number of years as a registered nurse. Participants included in the study

were required to be able to recall the disaster experience and discuss it with the researcher. Nurse's currently undergoing mental health treatment (psychological counseling for PTSD or other disorders) related to combat, deployment, or disaster were excluded from the study to avoid increasing the participants' psychological burden.

There were several limitations to the study as follows: (1) only U. S. military nurses were included in the study, (2) news reports of disasters during and following their response could have influenced the nurses' stories, and (3) concern for maintaining confidentiality to specific actions had the potential to shape the information provided in their stories.

Summary

Findings from the research will begin to fill a major knowledge gap that exists in the literature about military nurses' capacity to engage in self-care during disasters, and the ability of the military to care for its nursing force before, during, and following such events. It will expand existing knowledge of U. S. military nursing history. It will also enhance the military's awareness of their nurses' perceived needs and suggest needed revisions in policy and procedures related to disaster response. Information garnered will be useful in planning for future disaster deployments.

In the initial section of this chapter, I offered an overview of military life, discussed how my military experience was a beginning to my current study, and described how the HSN program served as the bridge between my military experience and research topic. The reminder of the chapter presented a statement of the problem, purpose of the study, research question, operational definitions, assumptions,

delimitations, exclusions, and limitations. Chapter Two will provide a review of the literature related to nurses and their response to disasters.

CHAPTER 2

REVIEW OF LITERATURE

Introduction

The chapter begins with theory applicable to disaster response. The theories are followed by of the literature related to the history of disaster nursing, disaster preparedness, and nurses' disaster response. The chapter concludes with material regarding psychological issues noted in nurses responding to a disaster, and crisis communication applicable to disaster response efforts.

Searches were performed of numerous sources to gather the information needed to explore the phenomenon of nurses' disaster response. Electronic databases of Cumulative Index of Nursing and Allied Health Literature (CINAHL), Homeland Security Database, Dissertation Database, Educational Resources Information Center (ERIC), PsychInfo, PubMed, and the Social Science Index were examined using the search string of disaster, disaster and nurse response, military nurse and disaster response, disaster response and nurse stress, and natural disasters and nursing response and crisis communication and disasters. No limitation was placed on the age of the literature; this allowed inclusion of any historical works. The initial search resulted in over 150 articles. However, only 32 research articles were retrieved that contained applicable information.

After I examined the articles obtained from the databases, I conducted an additional search by reviewing the reference lists, which revealed additional articles useful to the phenomenon of interest. Finally, a search was conducted on the World Wide Web for additional information not located in the databases using similar search strings

as previously noted. Valuable information regarding disasters and disaster deployments may be learned by reviewing the historical information.

Every year the world experiences numerous disaster events, both human-made and naturally occurring, with natural disasters taking on increased importance. In the United States, during the timeframe of January 3, 2000 through March 3, 2007, the President declared 377 natural disasters. In the U. S., in 2007 alone, 63 disaster declarations were issued. In contrast, in 2008, 75 major disaster events were declared. Worldwide, from the beginning of 2006 to the end of 2007, 805 disaster events were recorded and 16,847 lives were lost (Federal Emergency Management Agency (FEMA), 2008; 2009; Schuern, Polain, Below, Guha-Spair, & Ponserre, 2008). As of March 2009, 18 U. S. disasters events have been acknowledged (FEMA, 2008). Table 2.1 below illustrates the number of U. S. federally declared disasters from 2000 to 2008 (FEMA, 2009):

Table 2.1

Overview of U. S. Federally Declared Disasters by Year

Year	Number of Disasters
2000	45
2001	45
2002	49
2003	56
2004	68
2005	48
2006	52
2007	63
2008	75

According to nurse historians, as early as 1963, there are documented records of Army nurses who responded to disaster. As part of a humanitarian mission, 30 nurses established a 120-bed field hospital in Skopje, Yugoslavia following a massive earthquake (Feller & Moore, 1996). Based on data gathered regarding a host of more recent disasters, dating back to the 1992 humanitarian famine crises in Somalia, including the 2004 Banda Aceh tsunami in Indonesia, and extending through the 2005 response to Hurricane Katrina and the Pakistani earthquake, we know that thousands of military health care personnel respond to domestic and international disasters (Elleman, 2007; Feeley, 2005; LeFever, 2006; Mauney, 2004; Military Operations Other Than War, 2000). There is no specific data available from any source to document how many nurses were among the health providers who deployed to these more recent events. In summary, little is known about the disaster experiences of military nurses who have participated in disaster responses. This dissertation research will help fill that gap.

Theory Applicable to Disaster Response

Within the disaster environment, victims need both physical and psychological care. However, disaster responders may also need similar resources including food, water, safety, security, love, and belonging. In the realm of psychological theory, one fundamental pillar upon which existential phenomenology is founded is the Theory of Human Motivation better known as Maslow's Hierarchy of Needs (1943). Among all other perspectives, Maslow's conceptualization seems most compatible with the study of military nurses' experiences in disaster.

Physical care for the injured is often required during and/or following a catastrophic event, yet history has demonstrated that in most disaster situations, there is an initial loss of technology, supplies, and other essential equipment commonly used in modern health care practice. Therefore, nurses in these environments will need to rely on basic nursing skills that were utilized exclusively in ages prior to the development of modern technology. The original concept of nursing as a profession came out of the austere environment of war and was described in the works of Florence Nightingale. Therefore, Nightingale's Theory of Nursing is uniquely well-suited to address the care provided during catastrophic events. Both Maslow's Hierarchy of Needs and Nightingale's theory of nursing care will be used as a foundation for examining the experiences of military nurses who have responded to disaster.

Maslow's Hierarchy of Needs

According to Maslow (1943), a humanistic psychologist, "human needs arrange themselves in hierarchies of prepotency; one need usually rests on the prior satisfaction of another, more pre-potent need" (p. 370). He contends that the situation or the field in which individuals interact must be considered in regards to those identified needs. However, the environment must be interpreted through the individuals within the field itself. Not only must this be accomplished as a whole, but must be done so in light of "isolated, specific, partial, or segmental reactions" (p. 371).

Maslow (1943) opines that human beings are driven by a continual state of need and that no need or drive can be separated one from another as every requirement is related to or superseded by another. He posits the body constantly strives to be in a state

of homeostasis, an internal equilibrium. On this premise, he developed a pyramid of five levels, including psychological, safety, love/belonging, esteem, and self-actualization.

Maslow (1943) suggests that in the level of the five needs, one will not fill the second need until the demands of the first level have been accomplished. The first level, physiological needs includes the need for oxygen, food, and water. Safety needs are identified as the second level. The satisfaction of requirement of security, protection, calmness, and lack of fear are achieved at this level. The third level is comprised of love, affection, and belonging. An individual overcomes the sense of loneliness and alienation at this level. The fourth level, which includes esteem needs, satisfies the desire for stability in society, and a feeling of self-worth. The final stage is that of self-actualization. At this level, achieved by very few people, the individual is doing what he/she was meant to be or do. In other words, the individual has grown, they have become; they have transcended.

Nightingale's Theory of Nursing

The works of Nightingale (1860/1969) were inspired by her experiences in the Crimean War, where she served as the Lady Superintendent in Chief in the English General Military Hospital, and from her years of nursing prior to the war. Nightingale's concepts of nursing encompass five elements: pure health, pure water, efficient drainage, cleanliness, and light. Noise discipline is another area she addressed within the realms of patient care. Although she does not specifically use the word environment in her writings, the aforementioned elements all are components of the natural surroundings within the world we reside. The five components are just as applicable to nursing today as they were in her time (Dossey, Selanders, Beck, & Attewell, 2005; Nightingale, (1860/1969).

Within Nightingale's theory are references to ingenuity, and perseverance, which she identifies as characteristics of a good nurse. If the nurse possesses these attributes, then the ability to save lives increases. She also speaks to the "habit of observation" (p. xvi). Nightingale opines that if the nurse cannot master this behavior, he or she should leave the profession. The characteristics of ingenuity, perseverance, and observation are particularly relevant to military nurses who respond to disasters. At the time of the deployment, these individuals must adapt to unknown environments, will presumably work long hours, and must be creative in providing care with the supplies and equipment available within the disaster arena (Nightingale, 1860/1969).

In modern times, Nightingale's theory has been expanded upon by Whall, Schin and Colling (1999). They observed that the key elements in Nightingale's theory were rather limited, focusing heavily on the external environment and social actions of the nurse. What Nightingale failed to address are the more internal emotional processes that drive human beings. While the work of Whall et al. addresses dementia care in the elderly, it highlights an important aspect of healing can be applied to disaster nursing. It is imperative to consider these internal emotional factors that influence a nurses response to catastrophic events.

According to Dossey et al. (2005), Nightingale can be viewed as the originator of holistic nursing as her writings described many of the internal and external elements of nursing care. Within the realm of disaster nursing, the responder must be cognizant of all aspects of care, physical, mental, and environmental. The two majors theories discussed here, Maslow's Hierarchy of Needs and Nightingale's Theory of Nursing, are

complementary to the study of military nurses in disaster responses. Whall et al. (1999) add to her perspectives.

History of Nurses Responding to Disasters

Beginning with Florence Nightingale, and continuing to the present day, nurses have been steadfast health care providers, saving lives with their unwavering aid.

Origin of Nursing Disaster Response

Disasters have wrought fury on humankind across the ages. As mentioned by Dara, Ashton, Farmer, and Carlton (2005), responding to a disaster to provide aid "is an ancient human endeavor" (p. S2). No single country or culture has been immune to the devastation rendered. Response to disasters has often included providing shelter, medical and nursing care, and preventing of complications following the event.

According to Komnenich and Feller (1991), while Clara Barton receives credit for foundation of the American Red Cross in 1881, the International Red Cross came to be as the result of Jean-Henry Dunant's efforts. In 1859, on an evening following a battle during the War of Italian Unification, in Castiglione, Italy, Dunant witnessed thousands of unattended, wounded soldiers who were left without care. As a result, he realized that organized disaster relief efforts were needed (Dara et al; 2005; International Committee of the Red Cross, 2004; Komnenich & Feller, 1991), and proceeded with the organization of the International Federation of the Red Cross. The Red Crescent Society evolved out of the International Federation of the Red Cross and has concentrated on non-western traditions particularly in Moslem countries. Additionally, while national groups, such as the American Red Cross primarily concentrate on natural disasters, the International

Federation of the Red Cross and Red Crescent assume a more prominent role in conflict and war (Benthall, 1997). The evolution of organized response continued with the passing of a charter by the U. S. Congress in 1905. The premise of that charter was to establish cooperation between the federal government and the American Red Cross to provide aid for the sick and injured during conflict and disaster. As these and other organizations developed, documentation of crisis events began to emerge in the literature (Komnenich & Feller, 1991).

Only a small number of military studies were reported in the literature regarding natural disasters and terrorism prior to September 11, 2001. However, civilian health care providers conducted several studies on natural and human-made disasters prior to that date. Today, many civilian colleagues are members of the Reserve and National Guard units, so their experiences are timely and relevant to this study and are included here. A brief summary of the disaster studies to be discussed in the literature review portion of this chapter are highlighted in Table 2.2.

Table 2.2

Overview of Disaster Studies

Date	Author(s)	Disaster Discussed	Key Findings
1958	Rayner	Non-Specific Natural Disasters	Nurses experienced strong emotional responses that resulted from urgency of response and desire to provide care. They experienced difficulties with organization of care and role conflicts.
1963	Neal	Disaster Education	Few nursing faculty had preparation, experience, or interest in disaster nursing. Specific skills or functions deemed essential for disaster nursing could not be agreed upon.
1973	Laube	Hurricane Celia	Stress, physical demands, safety, and lack of supplies were the issues noted from the study. In addition, the nurses found it difficult to watch the suffering of the victims and to endure the chaos.
1984	Miles et al.	Hyatt Hotel Disaster	Findings indicated the rescue workers the psychological impacts of emotional distress, feelings of helplessness and frustrations, fear for their own safety, and a sense of vulnerability. Many of the participants described the disaster service as life changing.
1989	Mallison	Hurricane Hugo	The author spoke of providing care without electricity, fear of leaving family, working several days straight without relief, and how nurses can become victims.
1991	Whaley	Loma Prieta Earthquake	Safety is first priority for patients and employees following the disaster. Second is to survey the area for injured individuals. Psychological trauma may began immediately following the disaster but it is not time specific, appearing days, weeks, or even months after the event.
1996	Carroll	Hurricane Andrew	Disaster response training should be developed and added to specific military courses. The need for disaster protocols was identified.
1997	Suserud & Haljamme	Non-specific Accidental	The importance of disaster orientation, capacity for improvisation, and the importance of working and training as a team were identified.

Date	Author(s)	Disaster Discussed	Key Findings
1998	Turner	Non-specific Humanitarian	Outcomes indicated the nurses felt apprehension, uncertainty, and fear that changed over time to pride, understanding, and trust. The fast-paced tempo required ingenuity, energy, and dedicated teamwork.
1999	Hays	Hurricane Mitch	The necessity of adequate mission information prior to deployments, appropriate training for medical personnel to meet and support humanitarian missions and disaster relief missions, and adding pediatric medications/supplies to emergency packs was indicated.
1999	Hogan et al.	Oklahoma City Bombing	They reported that documentation of decisions and treatments provided at the disaster site prior to arrival at a healthcare facility were non-existent.
1999	Uranso et al.	USS Iowa Explosion	Authors found that dealing with the dead who were known to the participants as associates or family members increased the possibility of developing PTSD and occurred frequently in these type of situations.
2001	Arlington After-Action Review	Pentagon Attack	Findings indicated security was an issue, off-duty staff could not report to work due to closure of main roads and bridges and communication between disaster area and local EMS was inadequate.
2002	Dickerson et al.	World Trade Center Attack	Nurses found hope even in dire situations, nurses must remain open to assess the effect of the event among victims to include themselves, responders should received training in for future disaster response, creativity and improvisation are critical nursing skills.
2002	Margalit et al.	Marmara, Turkey Earthquake	Findings indicated that managing patient distribution, flexibility to allow rotations, cultural awareness, and foreign language ability were important skills. Working longer, more demanding shifts were noted.
2003	Zamarripa	Disaster Training	Problems identified were sanitation, food, security, safety, communication, and housing. The need for organization and flexibility were additional outcomes.
2005	Fitzpatrick	World Trade Center	Of 400 the rescue workers who assisted at the 2001 disaster, 20% demonstrated signs and symptoms of PTSD. However, on 3% sought mental health services.

Date	Author(s)	Disaster Discussed	Key Findings
2005	Wang et al.	Pentagon and 9/11	Outcomes noted were lack of familiarity with details of disaster plan, need for triage training, and the lack of emergency communication between facilities.
2006	Frank & Karioth	2004 Florida Hurricanes	Of the 500 nurses surveyed, over 70% reported significant disruption in their personal lives since the disaster response. Additional long work hours increased emotional concerns. Empathy for patients influenced the hours worked leading to decrease in emotional well-being.
2007	Grant & Secreti	Disaster Training	Civilian medical personnel found it difficult to designate a patient as expectant; military and civilian language were incompatible, and knowledge of available resources were lacking within the community.
2007	Jordan-Welch	Hurricane Katrina	The participants described feelings of apprehension, worked in different roles often outside of nursing and were forced to make difficult ethical decisions. The participants experienced physical isolation, and they spoke of using innovation to provide care and the hope of survival.
2007	Rodgers & Lawhorn	Hurricanes Katrina and Rita	Communication and adequate information for a safe and effective disaster response was lacking. Nurses had concerns for their own well-being from both health hazards and emotional impact.

Nursing's Response to Natural Disasters

Reporting of nurses' responses to natural disasters began as early as 1958 in the historical works of Rayner, a nurse researcher, who identified the need for inquiry into the emotional impact of providing care during a traumatic event. Although she does not stipulate the number of participants in her 1958 study, she was clear that her research included nurses who provided care during events ranging from accidents to hurricanes. Rayner's findings (1958) demonstrated that among her participants there was an overwhelming sense of urgency and tension that prevailed throughout the event. She stated, "this highly specialized group, whose primary functions constitute relief and remedy for the involved populations, frequently find itself subject to the same physical, emotional, and social disorganization as the disaster-stricken population" (p. 572). In her study, many nurses spoke of "emotional inoculation, a staunchness in the face of human suffering and misfortune" (p. 574). The "nurse-mother role conflict" surfaced in nurses who had children and witnessed the suffering of children during disasters. Another role conflict was termed the "nurse-doctor conflict." Nurses indicated that this involved performing tasks without instructions from the physicians or sometimes completing procedures not within their scope of practice. The experience described by Rayner, paints a picture of hardships encountered during disaster responses, providing early lessons needed for preparation of nurses for the future.

In summary, through her field study, Rayner (1958) identified several characteristics unique to the nursing profession: (1) willingness or need to give, (2) task-orientation, and (3) perception that from chaos must come order. A nurse's character, commencement of her or his professional role, combined with training, requires support

of team members to provide a high level of effectiveness and security. During disasters, others are dependent on nurses, and they become responsible for their own needs and security. The intensity of the event wreaks havoc with their confidence and self-sufficiency. The circumstances of the disaster renders problems above daily duties, yet, nurses are expected to function, as if there was no crisis. Several nurses verbalized that "you felt you couldn't do enough for these people, you couldn't work hard enough or long enough to take care of them…you wanted to do something, there was so much you could do and so much you could not" (p. 574). The author warned of the jeopardy involved in balancing emotional over-involvement and emotional distance and observed that nurses need to be confident in their skills, expect to perform them without previous experience, and be aware of potential emotional impacts that are beyond the norm. The current study will add to the findings of Rayner by interviewing military nurses who have responded to disasters and comparing the outcomes of the two studies.

In the same vein, Laube (1973) employed a convenience sampling method to conduct structured interviews with 27 civilian registered nurses regarding their experiences during Hurricane Celia. The purpose of that study was to gather information applicable to future disaster preparation, and to explore personal and professional characteristics inherent to disaster nursing. Sixteen nurses reported having some disaster nursing theory, plus prior disaster experiences. Several nurses remarked they worked 17-24 hours without reprieve. Stress, physical demands, safety, and lack of supplies were the issues identified from the experience. Watching the suffering of the victims and enduring the chaos was difficult for the nurses. The Laube study included the lack of instrument development information and inadequate description of the method employed to analyze

the data. Information from that study adds to the outcomes noted by Rayner (1958), regarding stress, long hours, and safety. Military nurses could feasibly experience stress and have concerns regarding personal safety during and following disaster responses.

The Loma Prieta earthquake rocked the northern portion of California in October, 1989 and served as the topic for a 1991 study by Whaley. In that work, participants related concerns about disaster response immediately following the incident. Whaley points out that safety was the first priority for patients and employees. Second was to survey the scene for injured personnel. Finally, Whaley noted that while psychological trauma began to emerge immediately following the earthquake, its appearance was not time specific, and for some participants it continues to appear days, weeks, and even months after the disaster. Whaley's work demonstrated a need for hospitals and other health care facilities to have a disaster management plan in place that incorporates both medical and psychological care. Additionally, administration must identify individuals who will complete a risk assessment shortly following the incident for future communication and health needs. Disaster management plans are imperative in crisis. The current study will build on Whaley's research by potentially identifying methods to improve disaster management plans.

Similarly, Mallison (1989) described her first-person experience just prior to and following Hurricane Hugo in 1989. She spoke of her fear of leaving her family as she reported to work, aiding nurses to evacuate patients, then grouping the patients together away from windows in preparation for the storm. Mallison pointed out that as the hurricane's winds struck the city, almost simultaneously, tornados and a 17-foot wall of sea perpetrated additional destruction. All city power was destroyed. Eventually,

emergency generators failed. The nurses manually bagged ventilator patients,' utilized battery operated suction machines, and physically carried oxygen tanks up and down stairs. She related how the hospital became a shelter for many in the community as an influx of chronically ill individuals stranded without electricity, medications, supplies, or caregivers filled the emergency room. The author told how nurses worked continuously from the Thursday evening as the storm began to Saturday without relief (Mallison, 1989). Her story is a testimonial to the perseverance nurses have while providing care during disaster response. Although she did not mention any specific mental anguish, Mallison did state that many of the nurses were left with only the clothes they wore to work, as much of what they owned was destroyed. Alas, nurses can become victims also.

The role of the Army Medical Department (AMEDD) in disaster relief was reviewed in 1996 following the response of the 28th Combat Support Hospital (CSH) to the Hurricane Andrew disaster. The After Action Report (AAR) identified the lack of training and protocols regarding disaster assistance operations. Carroll (1996) indicated a course should be designed by the AMEDD Center and School (AMEDD C&S) to address disaster response. The author stressed the importance of adequate preparation, suggesting disaster operations be added to specific military courses and that individuals attend emergency preparedness courses regarding the delivery of care in catastrophic events (Carroll, 1996).

Similarly, following the destruction of Hurricane Mitch in Central America during 1998, the 86th Combat Support Hospital deployed to provide additional medical support for the disaster event. In the AAR, Hays (1999) made several recommendations that addressed future deployment needs: (1) adequate mission information prior to

deployment, (2) adequate training for military medical personnel to meet and support humanitarian missions and disaster relief operations, and (3) pediatric medications/supplies added to the packing lists (Hays, 1999).

The three previous first person accounts (Carroll, 1986; Hays, 1999; & Mallison, 1989) demonstrate the necessity to review previous disaster experiences to facilitate succinct, organized deployments in the future. Interviewing military nurses who have experienced disaster deployment will add to this knowledge and enable better planning for future responses.

A military study conducted by Turner (1998) researched the experience of chief nurses outside of the wartime environment. The research question asked was "What is the experience of the chief nurse in military operations other than war?" Thirteen military nurses, enrolled through a purposive sampling technique, participated in the study. Included in Turner's study were experiences of military nurse deployments to disasters and humanitarian missions. The participants specifically addressed the difficulty of "austere health care,"(care provided in a harsh or difficult field environment) indicating this type of situation results when there are high numbers of acutely ill patients, and few resources. Nursing care rendered in mass casualty situations, such as those that followed hurricanes, tornadoes, earthquakes, and possibly industrial accidents, was illustrative of austere health care.

Using hermeneutic phenomenological methods adapted from three phenomenologists: Colaizzi (1978), Ray (1990), and van Manen (1990), Turner's study revealed 32 interpretive clusters that emerged from meaning units in the text. The interpretive clusters became the fundamental themes of deployment, followed by

essential themes, and culminating with three metathemes. The fundamental themes of the deployment experience were described as "preparing, arriving, living, working, and leaving" (p. 154). The five essential themes that emerged from the transcripts were paradox, leadership, caring, knowing, and the true military (p. 154). Metathemes that were illuminated included "authenticity, imaginative awareness, and pride" (p. 155). According to Turner (1998), the essence of the experience was expressed by the metaphor, "the true military: performing live theatre" (p. 160). Finally, the author indicated the study portrayed the challenges of leadership and experiences of the nurse administrators. Outcomes of the study indicated the nurses felt apprehension, uncertainty, and fear that changed over time to pride, understanding, and trust. The fast-paced tempo of the operations required ingenuity, energy, and dedicated teamwork. Health promotion, disease prevention, multinational and multicultural issues, and cultural understanding of responses to health and illnesses were concerns recommended for preparedness efforts. Building on the results of Turner's research, the current study will interview nurses across the different U. S. military branches. In contrast to Turner's work, which included only military nurse administrators, this study will not delimit participants to any certain nursing specialty.

Suserud and Haljamme (1997) using a descriptive, interview-based research study, compared and assessed the functional roles and experiences of Swedish, civilian emergency room nurses who worked together in a disaster. Sixteen nurses, who were part of two disasters occurring in Sweden, participated in the study. Some of the nurses were routinely involved in emergency trauma care and had previous disaster training. Interviews lasting approximately one hour were recorded and entered into a computer for

analysis using the software program "Ethnograph" to evaluate the qualitative data. The authors indicated that the efficiency of nursing care provided on site was dependent upon disaster orientation, capacity for improvisation, and aggressiveness. Nurses at the scene indicated they were relieved when emergency medical support arrived. Other nurses mentioned the feeling of "being in a trance" (p. 160) and the uncertainty that came with being in charge of the situation. The nurses stressed the importance of working and training together as a team in order to maintain disaster response proficiency (Suserud & Haljamme, 1997). Military nurses often train as a team for combat, but, as documented in Chapter 1, very little military training is provided for disaster responses. Outcomes from the current study may or may not support this finding from Suserud and Haljamme.

An additional study conducted by Margalit et al. (2002), applied an interview process to obtain responses from Israeli nurses and physicians regarding the 1999 earthquake, which shook the region of Marmara, Turkey. That 7.4 magnitude earthquake resulted in over 2680 deaths and 5300 injuries. Main utilities, including running water, were crippled. Serious structural damage rendered medical services inoperable. Health care providers were among the casualties. A field hospital, established by the Israel Defense Force (IDF) on the fourth day and concluding on the 14th day after the earthquake, treated 1205 patients. The purpose of their research was to determine the requirements of nurses based on their experiences in a field environment. The authors reported that the following skills were important: management of patient distribution, flexibility to allow rotations, cultural awareness, foreign language ability, and attention to hygiene conditions. Other outcomes of their study indicated nurses worked longer and more demanding shifts than that of a routine hospital and that concern about language

and cultural barriers should not be lessened regardless of the plethora of translators available in the region. The study provided useful information regarding a rapid deployment of a field hospital, which could be generalized to any military deployment in support of natural disasters. Information from the Margalit's et al. study will be compared to the outcomes of the proposed study of military nurses' experiences.

Care provided to the victims of the 2005 Hurricane Katrina which struck Louisiana and Mississippi was studied by Jordan-Welch (2007). Nine civilian nurses were interviewed regarding their experiences while working in hospitals during and or following the disaster. Using a phenomenological approach, the nurses were asked, "What was the experience like providing care to patients during and immediately after Hurricane Katrina?" Six themes emerged from the data. The theme of "fear" included nurses' feelings of apprehension, thinking they were going to die. The theme of "blurred boundaries" related to the different nursing roles required to provide care, some of which fell outside of the usual scope of practice, and the reality that in the end many nurses became patients themselves. The theme of "ethical conflicts" referred to the difficult choices they faced. The nurses described the theme of "isolation/connection," as feeling as if they were on an island. The nurses indicated they experienced a physical isolation during the storm and the importance of reestablishing a link or connection with another person. The theme of "powerlessness/power" resulted from not being able to render the care they felt their patients needed. Nurses regained the feeling of power through improvisation, by attempting to change the way they looked at a situation, and by establishing new priorities. The final theme of "no hope/hope" emerged as nurses recalled memories of watching hospital roofs falling in and bricks flying out of their

building. Recommendations of her study included exposing students to scenarios such as assessing patients in the dark with flashlights, or providing emotional support to one another. Nurses were encouraged to think about preparing for disaster situations by gathering comfortable clothing, food that is non-perishable, and personal items that could last more than five days (Jordan-Welch, 2007). The Jordan-Welch study provides knowledge applicable to future disaster planning and preparation. Jordan-Welch's study investigated civilian nurses who were located within the disaster area while rendering care to patients in a hospital environment during a specific American disaster. The proposed study of military nurses' experiences in disaster will build on her work, exploring the responses of nurses in the U. S. military who have deployed to multiple crisis events both within and outside U. S. borders.

Finally, an anecdotal article written by Marshall (2007) reflects on her experiences following her Hurricane Katrina response efforts. She observed that, "no one could have been fully prepared" (p. 1). Marshall also notes that there are commonalities in all disasters. She stresses the importance of planning and following protocols; reading stories of nurses and physicians who were present during different disasters; heeding the advice of the people who were there; and beginning immediate planning, training, and practicing for the next disaster.

Nursing's Response to Human-Made Disaster

Human-made disasters include two categories: those that are intended to cause harm, and those which result from accidents. Depending on the nature of the event, the impact may be localized or widespread. Both have the potential to result in many casualties (FEMA, 2003; 2006).

An example of an accidental human-made disaster was the1981 collapse of the skywalks at the Hyatt-Regency Hotel in Kansas City, Missouri. Using a descriptive survey design, Miles, Demi, and Mostyn-Aker (1984), studied the physical and emotional reactions of the rescue workers who responded. Fifty-four rescue workers (firemen, nurses, emergency medical technicians, and other non-health care workers) participated in the study. The researchers employed three instruments, the Hopkins Symptoms Checklist, the Health Assessment Questionnaire, and the Disaster Personal-Experiential Questionnaire. The first two were substantiated and validated tools. The authors developed the third tool founded on literature regarding disaster reactions. According to Miles et al., results from the surveys indicated rescue workers experienced the following psychological impacts: emotional distress, feelings of helplessness and frustration, fear for their own safety, and a sense of vulnerability. Associated with these reported stressors were participants' increased use of caffeine, alcohol, tobacco, and tranquilizers. Reports of physical manifestations, including musculoskeletal pain, were common. Many referred to their disaster service as life changing. The authors acknowledged that their results may be limited due to the non-randomized study, small sample size, and lack of a comparison group. Miles et al. (1984) provided the psychometric statistics for the developed instruments; however, a pilot test was not described for the tool developed by the authors. Procedures for the study were well described. Information garnered from the study illustrates concern for the health care provider following disaster response regarding psychological issues. As indicated by Jordon-Welch's (2007) study, there are implications that disaster responders can become a victim either during or following the traumatic event. Based on the information noted in Miles et al. (1984) and Jordon-

Welch's (2007) studies, it could be hypothesized that military nurse responders are vulnerable to emotional influences during and/or following the disaster event. The knowledge gained from the current study could provide insight on the emotional toll of disaster deployments and how better to protect military nurses in future disaster missions.

Terrorism is but one type of intentional human-made disasters, but human-caused events such as declarations of war or high-stakes sabotage also have the potential for consequences that include mass casualties. In the past, terrorism was associated with distant places. In more recent times, terrorism has been perpetrated on American soil. From 1995 to 2008, there were 24 documented terrorist incidents that either occurred or were foiled by authorities in the U. S. and its territories (Bombings, 2009). In review of the Bombings 2009 information, presented in Table 2.3, one will note that terrorist activity is not only directed toward government organizations, but in actuality may be perpetrated in any venue. The nature of terrorism is meant to instill fear and insecurity.

Table 2.3

Overview of Terrorist Activity in the U. S. and its Territories

Date	Incident	Outcome
1995	Oklahoma City Bombing	168 people killed, by Timothy McVeigh & Terry Nichols
1996	Centennial Olympic Park Bombing	Two killed, 111 injured, by Eric Robert Rudolph
1997	Empire State Building Shooting	One killed, several other visitors injured, by Ali Abu Kamal
1998	Health Clinic, Birmingham, AL	One police officer killed, workers injured, by Army of God against abortions
	U.S. Embassy Bombings, Nairobi & Dar es Salaam	225 people killed, more than 4,000 injured, by al-Qaeda members
1999	Planned attack Los Angeles International Airport	Terrorist attempt foiled, Ahmed Ressam was arrested
	Michigan State University Arson Fire	One million dollars in damage, Four members of Earth Liberation Front arrested

Date	Incident	Outcome
2000	Ellettsville, IN	$500,000 in damages to construction equipment, by Earth Liberation Front
	USS Cole Bombing	17 sailors killed, 39 injured by al-Qaeda terrorist
2001	September 11 attacks: WTC, Pentagon, & plane crash in Pennsylvania	2,997 killed initially, later more died due to toxic dust exposure, by al-Qaeda members
	Anthrax attacks, Washington, DC	Five killed, 17 infected, Bruce E. Ivins accused of crime
	Planned attack of King Fahd Mosgue, Silver City, CA and office of Lebanese-American Rep. Darrell Issa	Terrorist attempt foiled, plot planned by Chairman Irv Rubin and follower Earl Krugel
2002	Midwest Mailbox Pipe bombs	Six injured by Luke Helder
	Shooting at Los Angeles International Airport	Two Israelis killed by an Egyptian gunman
	Beltway Sniper Attacks, Baltimore-Washington area	Ten killed by John Allen Muhammad and Lee Boyd Malvo
2005	University of Oklahoma, Norman, OK Football Stadium bomb	By Joel Henry Hinrichs III who died in the explosion. No one else was injured.
2006	University of North Carolina at Chapel Hill SUV incident	Nine students injured by Mohammed Reza Taheri-azar when he drove a SUV into a crowed campus area.
	Planned attack on an Illinois shopping mall 22 December	By Derrick Shareef, Foiled by Federal Agents
	Planned bomb plot targeting multiple airplanes headed for U.S. from Heathrow Airport	Plot foiled by British Police
	San Francisco Bay Area	One killed, 19 injured by SUV driven by Afghani Muslim
2007	Trolley Square shooting in Salt Lake City, Utah.	Five killed and four injured by teenage gunman
	Planned attack on Ft Dix Military Base	Plot foiled by Federal Bureau of Investigation, six radical Islamist men arrested
	Planned attack John F. Kennedy International Airport	Plot to detonate the fuel system by Guyanese-American, Russell Defreitas foiled by authorities.
2008	Knoxville, TN Unitarian Universalist church shooting,	Two killed, seven injured by Jim David Adkisson

The bombing in Oklahoma City inspired Hogan, Waeckerle, Dire, and Lillibridge (1999) to conduct a retrospective review of hospital records. The purpose of their study was to examine the impact of the bombing on emergency facilities and the types of injuries that occurred. The authors noted that the bombing in Oklahoma City produced more fatalities and serious injuries than all the other documented U.S. bombings from1984 to1994. Medical records from 13 different hospitals were reviewed. Of the 388 patients treated immediately following the bombing, 265 were sent to the emergency room for care, 114 were assigned to minor treatment areas within the hospitals, and nine did not have a treatment location recorded. Triage was the greatest problem identified. The authors emphasized that triage is a vital process that is constantly evolving between the field site and transportation to a health facility following a disaster. Documentation of decisions and treatment provided at the scene were essentially non-existent. Therefore, the authors stipulated triage documentation needed improvement. They offered considerations for a triage flow sheet or checklist that would be initiated onsite with additional use at emergency department (Hogan et al., 1999). Information regarding documentation concerns should be incorporated in future disaster planning to facilitate crisis management. As noted, managing accountability is difficult during traumatic events. As we gain knowledge from military nurses who process victims during disasters, perhaps they will be able to share insight for better methods of documenting care.

A study conducted by Dickerson et al. (2002), examined the experiences of 17 nurses that worked at Ground Zero following the World Trade Center (WTC) attack. They, like all Americans were stunned by the events, which unfolded on the morning of September 11, 2001: the attack on the Twin Towers at the World Trade Center (WTC),

the airline crash into the Pentagon, and the downing of the hijacked plane in Pennsylvania. The nurses who responded to the WTC crisis mentioned how everything had changed following the destruction of the towers: "I looked up 14th Street, there were no towers, absolutely no towers, my body just shuddered, very fearfully" (p. 29). Another mentioned, "the sense of destruction was overwhelming…everything was taken away from you" (p.29). A third related, "Time seemed to stop, the day no longer had reference points, it was very blurred, the city in all essence was shut down" (p.29). Finally, one nurse said, "We were all ready to care for patients, but there wasn't anyone to treat because they were all dead, the WTC was ashes and a grave to thousands" (p. 29). Reading their stories illuminated the true meaning of the calamitous event. Interviewing military nurses to gain their perspective on responding to disasters will add to the findings gleamed from Dickerson et al.

Military health care providers were the first to respond to the traumatic events at the Pentagon (Pentagon, 2006). Two types of investigations took place following the event: debriefings and research. In a routine debriefing, several nurse corps officers stationed at Walter Reed Army Medical Center and the Pentagon recounted their experiences and recollections: mass confusion, disturbing odors, looks of terror on people's faces, and overwhelming grief. The officers credited the military training they received, knowledge acquired in nursing school, and the practice of disaster plans for quick reactions made during the catastrophe (Office of Medical History, 2002).

In a research project, Wang, Sava, Sample, and Jordan (2005) examined the medical response to the attack on the Pentagon. Their retrospective study looked at hospital records and emergency medical reports. Of the 106 patients treated in area health

care facilities, 49 were admitted while 57 were treated and released. The researchers failed to describe the specific methodology of the study. However, the study highlighted several key points that could prove useful for future planning: (1) lack of familiarity with details of disaster plans was a hindrance, (2) additional training in triage procedures was needed and (3) lack of emergency communication capability between treatment facilities was identified. The proposed study of military nurses' experiences of responding to disasters could potentially illuminate considerations regarding disaster policies and procedures, triage procedures, and communication skills.

In addition to the above reviews, emergency responders, along with county officials, published the Arlington County After-Action Report (2001) (ACAAR) regarding the terrorist attack on the Pentagon and the county's response to the disaster. Their report identified lessons learned which could be of benefit in the design of future disaster plans. One positive finding was that hospitals in the region had taken it upon themselves to initiate disaster plans and other emergency response preparedness actions based on the possibility of mass casualties from the WTC. Additionally, the hospitals were applauded for demonstrating foresight in anticipating that the Washington Metropolitan Area could be another target. Immediately following reports from the news media regarding the Pentagon attack, numerous area hospitals began to prepare for the arrival of injured personnel. Surgeries were cancelled, and patients were discharged to make room for incoming casualties (ACAAR, 2001). In contrast, the ACAAR (2001) indicated security at the Pentagon became an issue due to the influx of non-military personnel into a military facility. Transportation in and out of the compound was difficult due to closure of major highways and bridges in and around Washington, D.C.

Information in the ACAAR (2001) indicated that off-duty staff found it arduous to respond to the disaster due to the different closures and stalled traffic. In addition, communication between the disaster area and local emergency responders (EMS) was documented as inadequate. Due to the lack of communication, only two ambulances were initially available to transport over 40 critically injured individuals. Another concern noted in the review was the exclusion of area health clinics in disaster planning (ACAAR, 2001). Future recommendations for area hospitals, based on the after-action review, included: (1) revise the disaster response plans to include all area health facilities, (2) assess readiness and ability to respond to future disasters, (3) provide training in mass casualty operations, and (4) conduct regional mass casualty exercises annually (ACAAR, 2001). The attacks on the WTC and the Pentagon were difficult experiences for all, but indeed, they highlighted the need for increased awareness and training for health care providers whether military or civilian (ACAAR, 2001; Dickerson et al., 2002; Office of Medical History, 2002; & Wang, et al., 2005).

In order to better prepare for the future, one must begin by reviewing historical information. As documented in the previous research studies and personal accounts of disaster responses, civilian and military nurses may be involved in catastrophic events. Several of the previous authors have verbalized the importance of triage, documentation, learning about and preparing for disaster responses. Several authors noted the necessity of developing and managing disaster plans and instituting disaster policies and procedures. Others mentioned the criticality of accountability while processing disaster victims during traumatic events. Teaching these important skills should begin in basic nursing education. Nearly all of the previously mentioned research studies involved

civilian nurses in both natural and man-made disasters. The current study will build on that historical knowledge by interviewing military nurses who have responded to disasters and comparing the findings of the study to the previous works.

Nursing's Role in Disaster Preparedness

Military Nurses and Preparedness

The seminal work conducted by Neal (1963) is regarded as the first major effort to assess disaster preparedness in nursing (Komnenich & Feller, 1991). Neal, a nurse educator, in conjunction with the National League of Nursing (NLN) and the Federal Civil Defense Agency (which later became the Department of Defense) completed a pilot study that began in January 1958 and continued through 1961, which included four schools of nursing wishing to add disaster-nursing courses to their program of study. The purpose of the study was to evaluate the preparation of nursing students and nursing staff through responses to five disaster nursing problems and scenarios. The researcher mentioned two problematic findings: (1) few nursing faculty were skilled in disaster preparation or had an interest in learning about disaster nursing, and (2) there was not a general consensus regarding the skills that needed to be taught. Based on the findings, Neal recommended to: (1) conduct interdisciplinary research to identify skills needed to perform care in a disaster, (2) define the essential body of knowledge needed during a disaster, and (3) utilizing military resources, develop a disaster training facility. Neal's work established the awareness of the necessity for disaster preparation.

Along similar lines, Zamarripa (2003) examined changing policies and approaches to disaster education and response in the U. S. Air Force. Incorporated in her

review was a retrospective evaluation of an actual international natural disaster incident in which she was a responder. Problems she identified included sanitation, food security, safety, communication, and housing. Additionally, she discussed the duty to respond and the need for organization and flexibility. She found collaboration between military and civilian health care providers to be essential, and believes that the benefits of working together will increase the effectiveness of disaster management.

In reflecting on the above two studies, one can visualize the importance of training and preparing for future disaster responses. The current study could potentially address the gaps identified by Neal (1963) and Zamarripa (2005) regarding disasters skills and facilitate development of disaster courses for nursing academia in the future.

Civilian Nursing and Preparedness

Two studies published in 2007 focused on civilian nurses responding to disaster, with recommendations for preparedness. An evaluation of preparedness for response to natural disaster was conducted by two nurses, Rogers and Lawhorn (2007), utilizing a descriptive survey design. The other was the phenomenological work by Jordan-Welch (2007) previously described.

The Rogers and Lawhorn (2007) sample of 246 occupational nurses, who had voluntarily responded to Hurricanes Katrina and/or Rita, answered ten questions about their roles and the challenges they faced. Over half of the respondents reported having been engaged in public health nursing activities, such as health promotion, surveillance, and immunizations. The remainder of the time, the respondents were engaged in general heath care. Major difficulties they faced during the hurricane response related to communication and inadequate information essential for effective and safe disaster

response, such as hazards information. They also lacked health-related supplies, medicines, and adequate security. Nurses reported having significant concerns for their own well-being, both from hazards such as contaminated water and exposure to toxins, as well as the emotional impact of needing to manage human and animal remains. Recommendations of the authors included a need for improved preparedness efforts, communication skills development, and an understanding of the psychological impact of exposure to trauma. The greatest obstacle identified was communication with the governmental officials relating to volunteering for disaster response. In order to avoid the negative consequences of post traumatic stress, respondents believed that pre-screening of volunteers for their capacity to cope with the physical and emotional demands of disaster response should be completed. Their study certainly shows the difficulties volunteers have when trying to participate in disaster response. Disaster management policies need to address this concern and develop mechanisms for a smoother transition for volunteering during disaster, least these individuals become frustrated and turn away.

As previously discussed, Jordan-Welch (2007) also studied the responses of nurses who provided care during Hurricane Katrina. However, unlike the Rogers and Lawhorn's sample, Jordan-Welch's nine participants were employees of the area hospitals and were on duty at the time of the storm. Her respondents related stories that reflected extreme stress and lasting negative impact. Indeed, a number of her participants had left the profession of nursing following their rescue, and were so significantly traumatized that they had no desire to return to the profession, at least not full-time.

Her recommendations were that to assure more effective disaster response, nursing education needs to take a proactive approach, anticipating the stressors of

calamity: involuntary confinement, prolonged isolation, lack of security and safety, inadequate food and water, absence of privacy and resources for maintaining personal hygiene, ethical dilemmas associated with care-giving, and sense of hopelessness and powerlessness. This proactive nursing education approach could include development of scenarios for practice to be used by nursing students at all levels. Researching military nurses who have responded to disaster will build on these two significant studies.

Military and Civilian Collaboration in Preparedness

Writing in a special issue of *Critical Care Nursing Clinics of North America*, which focused on federal disaster response, Bridges (2003) an Air Force nurse, and Yoder and Brunken (2003) from the U.S. Army Nurse Corps, discussed the importance of military and civilian cooperation in disaster response. In particular, Bridges, in her introduction to the volume, stresses the need for both groups of nurses to share experiences and train together in order to respond most effectively when the need arises for disaster relief. Within her journal preface she poses—but does not answer—two important questions: (1) "What care do we provide on a day to day basis that we will also need to provide in a deployed environment?" and (2) "How does the environment change the way we will need to provide care?" (p. xiii). Yoder and Brunken agree that disaster response is very demanding, and reiterate the need to be flexible in order to adapt. They identify core competencies shared by military and civilian nurses, including both clinical skills and coping mechanisms.

In a 2007 intervention study, Grant and Secreti evaluated the coordination of the New York National Guard and the Central New York Medical Reserve Corp (CNYMR) (a civilian community volunteer health provider group). The study consisted of a training

session, followed by a hands-on test phase conducted over two days. The purpose of that study was to determine how civilian and National Guard personnel could increase the effectiveness of disaster response. The first day's activities consisted of training that included triage strategies, use of equipment, decontamination, incident command, teamwork, and evacuation. Each session lasted for approximately 90 minutes. The second day consisted of a mass casualty scenario. Participants were evaluated on all phases of the response. Outcomes of the study revealed several concerns: civilian medical personnel found it difficult to designate a "patient" as likely to die; military and civilian language was incompatible, as the military uses numerous acronyms; knowledge of available resources was inadequate. The authors concluded that joint training is imperative as both civilian and military respond to disasters together. Realistic training facilitates a smoother response action. Identifying resources that are available in a community decreases response time when the disaster occurs. Similar exercises and field studies should be conducted to establish clear, concise information needed for future joint responses. Although the study was limited to a singular military unit and one specific civilian group, it does provide useful information applicable to future joint training drills. Along these lines, interviewing military nurses who have deployed to disasters could lend thoughts for future joint readiness exercises.

Finally, in the National Guard Posture Statement and Executive Summary (Blum, 2007) Chief, of the National Guard, presented his "year in review" assessment, in which he reiterated that the Guard is committed to supporting readiness and preparedness efforts in each state. Of greatest importance is the Guard's commitment to transformation and

collaborative work, with the Guard serving as the link that joins civilian and military forces and operations for the support of the U. S. interests.

In reflecting on this section pertaining to nursing's role in disaster preparedness, the importance of training and preparing for disaster responses becomes self-evident. Organizing and practicing joint disaster scenarios between military and civilian groups could facilitate smoother relief efforts when the need arises. The current study could illuminate perspectives military nurses who have worked side by side with civilians potentially. Their narratives can serve to validate or refute the need for joint readiness exercises.

Psychological Issues Related to Disaster Response

According to DeWolfe (2000), it is important to maintain optimal mental health among responders to, as well as survivors of, disasters. Based on this fact, the Stafford Act of 1988 (PL 100-707) provides for authorization of psychological support as well as material assistance in the wake of devastation. The need for mental health support is viewed as essential for every person who responds to a disaster, because even those with the most comprehensive training and backgrounds cannot help but be impacted by the degree and intensity of trauma and suffering that is witnessed during the course of providing disaster relief. Even the most emotionally healthy responders will have their effectiveness diminished by the stress of constant coping (DeWolfe, 2000).

The term "stress" has often been used by psychologists to describe behaviors of altered psychophysical states (Lazarus & Folkman, 1984), with anxiety being an effective state that is a manifestation of internal stress (Flannery 1994; Lazarus & Folkman, 1984).

In comparison, Lazarus and Folkman (1984) define coping as "constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (p. 141). Along similar lines, Flannery (1994) further defined stress as the "state of discomfort that arises when our problems exceed our resources to cope with them" (p. 55), while coping is the process we use to manage or decrease stress.

Historically, crisis event stress management focused on the victims of calamity, but recently a new emergence of research is beginning to address the mental health concerns of the disaster responders. Adams (2007) emphasizes the vulnerability of both volunteer and paid responders following a disaster event. She notes that the respondent should be aware of their own needs, particularly emotional distress. Similarly, another psychiatric nurse, Fitzpatrick (2005) reported the results of a study conducted with 400 rescue workers who assisted at the 2001 World Trade Center attack. Of this sample, 20% demonstrated signs and symptoms of Post Traumatic Stress Disorder (PTSD). However, only 3% of the participants stated they had sought mental health services. She suggests that response workers query themselves about their own survival. Likewise, Robbins (1999) noted the importance of a critical incident stress debriefing for emergency rescue personnel following traumatic events and mentioned the need to vent impressions, reactions and feelings; discuss the event; reintegrate through group sharing; and receive mental health support should it be required. As documented by the previous others, disaster responders are vulnerable to emotional distress during and/or following disaster responses. In order to obtain first hand information about possible emotional distress during and/or following crisis events, one must talk to those who have responded to them.

The current research will utilize an open-ended question interview process to acquire information that may present perspective that will be useful in future training.

In a1999 study conducted by Uranso, Fullerton, Vance, and Kao, investigated 54 Air Force disaster rescue workers who had volunteered to assist with the processing of the dead following an explosion on the USS Iowa. The purpose was to investigate identification with the deceased as one of the mechanisms related to PTSD in disaster workers. Utilizing a repeated measures design, the subjects were tested at 1, 4, and 13 months following rescue efforts. Previous studies had indicated that disaster workers were at risk for both acute and chronic PTSD following mortuary duty. The study employed three self-report instruments; the Impact of Event Scale, the SCL-90-R scale, and the DSMPTSD-IV scale. All scales were well known with established validity and reliability and have been used in multiple research studies. The authors found that dealing with the dead who were known to the participants as associates or family members substantially increased the possibility of developing PTSD symptoms. Furthermore, PTSD is not only common, but frequent in these types of situations. A significant number of respondents complained of somatic symptoms as part of their stress response. Recommendations from that study included the need for better evaluation of somatic complaints among responders to disaster. Special consideration needs to be given to disaster responders placed in the position of working with or identifying the remains of people known to them. The study provided statistical information both in written text and in tables, which enhanced the understanding of the results. Measurement instruments were fully described and succinctly provided links to the different variables of the study. However, psychometric data were not provided for any of the measurement tools. The

possibility of PTSD in disaster responders because of dealing with death is valuable information for future preparedness efforts prior to disaster deployment.

Disaster response workers are vulnerable to developing mental health illnesses following a traumatic event. It has become increasingly apparent that individuals who provide care during/following a crisis warrant special considerations during deployments to prevent the responder from becoming the victim. A new term regarding stress and fatigue following a prolonged exposure to care has come into common usage. Joinson (1992) first mentioned the term "compassion fatigue" (CF) in 1992 in a discussion of the consequences of providing routine nursing care under usual conditions. Joinson defines CF as an "overpowering, invasive stress that can begin to dominate us and interfere with our ability to function" (p. 116). She describes how caregivers, during a routine shift, move through numerous roles that can be psychologically conflicting. A nurse may begin with patient care, and then proceed to perform administrative duties, followed by unanticipated involvement in a crisis. Merely by changing roles, energy is lost, while stress and tension increase. The problem occurs when this pattern is repeated over and over again, day after day. The effects of CF are not readily apparent, but take an emotional toll over time. Therefore, nurses should periodically reflect on their emotional well-being, assess their sense of nurturing, and nurture themselves as well as caring for others.

Frank and Karioth (2006) conducted a self-report survey study to measure the prevalence of CF in nurses who had responded to a hurricane disaster during the 2005 Florida hurricane season. The survey was mailed to 500 nurses. Of those, 117 nurses completed the survey resulting in a 23.4% return rate. The nurses had been involved in

the disaster response for one to four weeks. The survey instrument used for the study was the Compassion Fatigue Self Test. The nurses were asked to take the same test twice. Both copies of the test were mailed in the same envelope. The research was intended to measure two dimensions of CF: (1) CF as the nurses recalled having experienced it during their hurricane response and (2) CF as they experienced it at the time of the survey. Results demonstrated that over 70% of responding nurses experienced significant disruption in their personal lives. Those with an increase in the disruption of personal and family life that occurred during the disaster, demonstrated a greater level of CF in the outcome data following return to normal routines. Additionally, work disruption was significantly correlated with CF following the return to "normal" activities. Number of overtime hours worked during the disaster also took an emotional toll. Empathy for patients caused nurses to work excessive hours, and this was ultimately detrimental to the nurses' emotional well-being, as they found it difficult to rebound once the disaster had ended. Recommendations for the future indicated were that more research should be conducted to have a better understanding of CF and methods to reduce or prevent CF in future disaster responses. Although the response rate was low, the study provides valuable information about health care providers and CF. Realizing that health care providers are at risk for CF (secondary traumatic stress) allows disaster planners and leaders to incorporate coping mechanisms as part of disaster training. Although the current research is not studying the prevalence of CF, it is possible that since they have encountered disruption in their lives and dealt with those who lost all, military nurses may demonstrate indications of CF.

Health care providers are at risk for developing some type of psychological problem during/following a traumatic event. Numerous research studies have revealed that coping strategies routinely used may not be sufficient to sustain the health care provider during disaster. The current study could potentially illuminate new methods for coping and reducing stress in crisis situations. Furthermore, the study may provide insight into psychological training needs and/or recommendations to help reintegrate those who have deployed into their routine lives. This information would be useful in both the civilian and military health care sector.

Crisis Communication and Disaster Response

Two of the worst catastrophes that happened on American soil, the terrorist attack on September 11, 2001, and the devastation wrought by Hurricane Katrina have been used as benchmarks for crisis communication and disaster preparedness. Both events have influenced Americans' views regarding not only collaboration of local, state, and federal agencies, but also the role of the media in covering the disaster response.

Roles of Disaster Responders in Communication

During any disastrous event, effective crisis communication becomes the key component to relay essential information to individuals within the disaster area. Unfortunately, communication disruptions and failures are inescapable in crisis, most often attributable to the chaos that ensues in any event of this nature. Nurses participating in disaster response can play a pivotal role in conveying competent resource information to those harmed by natural or human-made events (Sonnier, 2009). Based on this premise, the crisis and emergency risk communication (CERC) model described by

Reynolds and Seeger (2005) aligns easily with public concern and provides crisis managers the opportunity of forward planning that may address future communication needs or problems. The CERC model provides the nurse responder with a method of evaluating, planning, and communicating health risk information to the victims throughout a crisis response and facilitates a reduction in fear felt by victims and their families by providing clear concise information.

Emergency information during natural disasters is also designed to protect health, promote safety, and address environmental concerns. Reynolds and Seeger (2005) related that the nurse respondent must remember the different stage of the unfolding crisis when preparing and relating information for the public. In pre-crisis, messages are constructed to prepare the citizens in case the event occurs, such as securing additional water, non-perishable foods, etc. During the crisis phase, responders provide information to reduce uncertainty, which allows individuals to understand what has happened, whether to evacuate or shelter in place, and perhaps resources for additional help. In post crisis, information reduces the feelings of immediate threats and communication to reduce or avoid risk that may be an outcome of the crisis.

Communication Lessons Learned

Several disaster events over the past years have presented an opportunity for lessons learned with the hopes of improving future disaster plans and crisis communication. The attack on the Pentagon provided insight into multiple communication difficulties, and some excellent actions. Wang, Sava, Sample, and Jordan (2005) examined the medical response to the attack on the Pentagon. The authors noted

the lack of emergency communication capability between the numerous treatment facilities as part of their thoughts for improvement following the disaster.

Likewise, emergency responders, along with county officials, conducted an ACAAR (2001) of the terrorist attack on the Pentagon and the Arlington County's response of the disaster. Hospitals in the region initiated disaster plans and other emergency response preparedness actions based on the possibility of mass casualties because of media and television reports regarding the terrorist attacks on the World Trade Center. Multiple methods of communication were utilized throughout the area to ensure medical facilities were alerted. Telephone, emergency medical dispatch systems, employees watching television, Washington National Airport Tower CRASHNET, and being on scene when the plane crashed provided notification of the disaster. Overall, the attempts to ensure notification provided a great response to the traumatic event. However, several problems were also documented (ACAAR, 2001). Communication between the disaster area and local emergency responders was inadequate. Due to the lack of communication, only two ambulances were initially available to transport over 40 critically injured individuals. Outlying clinics were not included in the communication systems or included in mass casualty planning. There was not a central clearinghouse hospital designated to coordinate communications between facilities. Even though the crisis was a daunting experience for all, valuable information was generated, which established a need for a more effective disaster plan (ACAAR, 2001).

Challenges in Communication and Media during Hurricane Katrina Disaster Response

Abundant in the literature is information regarding the wrongs that were committed during Hurricane Katrina and the communication efforts, which were noted as

lacking. The massive failure of the communication systems hindered many operations in the disaster response phase of Hurricane Katrina. The Congressional Report (2006) provided information regarding the impact of failed communication systems on relief efforts. Some of the consequences were as follows: inoperability of equipment, limited command and control, reduced situational awareness, and the absence of public communication caused civil unrest thus slowing relief efforts. Inadequate communications diminished medical care. First responders could not coordinate response and recovery efforts. These are only a few of the problems noted. However, these issues reflect the difficulties in providing quality disaster response due to the loss/lack of communication during a disastrous event.

Additionally, media reports can have a detrimental effect on relief efforts. Following Hurricane Katrina, blame was directed at the President, FEMA, the Governor of Louisiana, and the Mayor of New Orleans. Negative reporting can occur when there is a breakdown in communication between the media and the disaster responder. Sensationalism may become rampant as a result of misinformation, gossip, and rumors when concrete information is not available.

The use of communication may benefit victims and shapes the public's view of the crisis. Prompt information details the different level of organizations that are involved and could potentially lend a sense of security and calmness in chaotic times. If skillfully written, the communication will provide information in a clear, concise manner, which will help to establish trust and formulate a bridge toward a positive relationship between the different response organizations and the civilian population (Littlefield & Quenette, 2007).

Joining Health Care Respondents and Media

One of the challenges many nurse responders often face is interacting with the media. Often they do not know how to deal with the multitude of reporters that are covering the event. Likewise, those in the media do not realize the confusion and jeopardy of patient privacy that may ensue while covering a catastrophic event. Nurses should prepare for disaster events by learning the language of the media and participating in scenarios that involve interaction with those who report the news. It benefits the nurse responder to work with the media, not against them if at all possible. Collaborative efforts produce a stronger front during chaos, thus decreasing fear, frustrations, and anxiety (Nacos, 2007; & Sonnier, 2009).

During the past several years, public officials and first responders have participated in training programs provided by the Federal Government, which addressed countless conditions that could arise during a crisis incident. Prior to September 11th events, the government paid little to no attention to the role of the media and public health communications in emergency exercises. However, in 2003, that position evolved and now both departments are integral elements in national preparedness exercises (Bartow, 2003). According to Reynolds and Seeger (2005), those in the role of crisis communication have felt an increasing urgency to engage in providing helpful information during public emergencies and incidents of natural disasters, dispersing facts about evacuations, mitigation resources and procedures, and the possibility of additional harm.

Many organizations, such as the Department of Homeland Security, the Centers for Disease Control and Prevention (CDC), and public health departments now recognize

the importance of having individuals who possess crisis communication skills as a member of their emergency response teams. Likewise, non-profit organizations and other public facilities have realized the benefits of adding a crisis communicator to their human resource management team (Ulmer, Sellnow & Seeger, 2007).

Joining the communication field with the health care discipline strengthens the team concept and facilitates success during a crisis situation. Health care professionals are accustomed to making difficult decisions during traumatic situations. Crisis communication experts are experienced in developing strategies to address the public during times of crisis. Bridging these two disciplines ensures the dissemination of succinct, accurate information through a strong central voice, thus reducing the stress and anxiety in the affected audiences that lingers during disaster events.

Nursing's role in communication and media relations is an emerging field of study. Currently, very little research has been conducted in this area. Therefore, much of the previously cited information arises from anecdotal articles. The current research will assist in highlighting communication concerns/issues that maybe identified during and/or following disaster responses. Working jointly as a team during a crisis situation presents a stronger front thus reducing the stress and anxiety noted by the public.

Summary

As part of military operations other than war, military nurses have been involved in disaster response for decades. While oral histories of combat operations exist, little is known about the experiences of the military nurse disaster responders. Yet, what is clear is that combat operations and disasters are not equal. Thus, for the military to meet its

duty to care for its own, and to assure the stability and optimal performance of its nursing workforce, it is critically important to understand the experiences and needs of military nurse responders. Several authors have emphasized the potential for disaster responders to encounter emotional distress and the importance of monitoring their emotional well-being. Therefore, military nurses need to be prepared to deal with the emotional aspects of traumatic events. Viewing the responses through their lens may provide insight into ways to help them cope in the future. This information would be applicable to both the civilian and military health care responders.

Allowing military nurse responders to tell their stories regarding their experiences of disaster events could facilitate the discovery of new information that was not currently known, and add to the documented history of military nursing. Knowledge gained could potentially assist with developing more effective training strategies and facilitate increased coordination efforts between military and civilian health care providers in future disaster responses. Furthermore, very little is known regarding military nurses, and how they deal with communication issues in crisis events. The current study may provide useful information about this topic.

It is concerning that although Neal (1963) stressed the critical importance of developing more effective training for military nurses who may one day respond to a disaster, we have made little progress in this regard. Over 40 years later, we have only begun to proceed in directly addressing the needs of military nurses who respond to disasters. In truth, we still know little about their lived experience. This study addresses that gap. Chapter Three presents the methodology that was employed in the study.

CHAPTER 3

METHODOLOGY

Introduction

The purpose of this study was to garner the essences of military nurses' experiences in disaster response utilizing phenomenological procedures outlined by Thomas and Pollio (2002) and founded on the existential phenomenological method of Maurice Merleau-Ponty (1945/1962). This chapter provides a short review of the historical underpinnings of existential phenomenological philosophy. The procedure for conducting an existential phenomenological study is outlined. This encompasses participant selection, data collection via interviews, data interpretation through the hermeneutic parts to whole process, and steps to ensure rigor and validity of the analysis.

Qualitative Research Approach

Qualitative approaches permit the researcher to investigate experiences through the lens of the participant and gain an understanding on how their views relate to the context of their world. Every individual's experience is unique and valuable. By using qualitative designs, the participants were afforded the chance to relay their stories in a richness, which facilitated the researcher's insight of participants' experiences (Creswell, 2003).

Qualitative research places an emphasis on the close relationship between the participants, their world, and the phenomenon under investigation, giving meaning to the experience through the participants' language. This type of methodology is situated in the natural environment of the participant, interpretive in practice, and describes a

phenomenon as it emerges through the relationship between the researcher and participant (Denzin & Lincoln, 2005). Qualitative research may explore personal experiences that bring meaning to the participants' lives using interviews and other resources. Open-ended questions are used to gather data. The researcher is actively involved with the participant, building rapport and credibility, while remaining respectful and attentive to the individual, following them wherever their story takes them. Through this interconnectivity, one hopes to garner new knowledge that will help individuals to deal with the experience in the future (Creswell, 2003; Denzin & Lincoln, 2005).

Based on my experience, health care providers, specifically nurses, work in a humanistic arena daily. Through dialogue with our patients, we gain a deeper insight of the essence of the things they have experienced. Would it not be feasible to employ the same method (dialogue) to research the essence of a specific phenomenon? We understand that our patients view life in a multiplicity of ways. Similarly, participants may respond to experiences in a different manner. Qualitative research is a naturalistic, holistic perspective that allows an interpretive perception of the human experience. In other words, qualitative research allows participants to depict what is important or figural to them.

Creswell (2003) related that by applying a phenomenological method "the researcher identifies the 'essence' of human experiences concerning a phenomenon as described by the participants" (p. 15). Research regarding military nurses' lived experiences during and/or following a disaster response was lacking. Employing this qualitative approach to facilitate an understanding of the phenomenon was appropriate.

Existential Phenomenology

In existential phenomenology, the philosophy of existentialism is combined with the technique of phenomenology to create a meticulous and distinct depiction of human life, including elements of the body, time, space, and others, a method of how we view ourselves within the world. The end result is that the human experience of the world is described in rich detail from the expert perspective of the one who lives it (Pollio, Henley & Thompson, 1997; Thomas & Pollio, 2002).

Existentialism and phenomenology have both been depicted as movements of philosophy beginning in the early to mid-nineteenth century. Breisach (1962) described the existential movement as one in which persons continually reflected upon their special position in the world and accepted responsibility for their actions. Moran (2000) viewed the phenomenology movement as being concerned with the concrete living experience, a study of consciousness, and concept of the life-world through an awareness of time and history. The origin of existentialism began with Kierkegaard, phenomenology with Husserl. Heidegger is credited with combining the two methods into what is known as existential phenomenology (Pollio et al., 1997).

Existentialists

Soren Kierkegaard (1813-1855)

Soren Kierkegaard (1813-1855), a Danish philosopher, is proclaimed as the father of existentialism (Wyatt, 2008). Kierkegaard (1847/1959) mentioned that the individual or self was more important than the whole. He contended that every choice or decision made during one's life redefines the self. He also felt that when the truth was obvious to the person, then that in itself was truth (Kierkegaard, 1847/1959). In review of

Kierkegaard's philosophy, living is existentialism; there are no worldwide, common truths; there is only the truth as viewed through the lens of the individual (Wyatt, 2008). This view of truth closely parallels Husserl's thoughts of phenomenology.

Phenomenologists

Edmund Husserl (1859-1938)

Edmund Husserl is often credited with being the founding father of phenomenology. According to Husserl (1910/2006) the starting point of phenomenology began with the knowledge acquired within the natural concept of the world and the "I" self. Regardless of their beginnings, there were "lived experiences" for the self, not only in the present, but also in memories of the experiences. He viewed this as the "natural attitude" of the individual's experience and related that the lived experiences were located within the "lived body."

Husserl (1910/2006) described phenomenology as a strict procedure, one in which we must put aside our preconceived thoughts before entering He introduced into his method the need for epoché which is the suspension, cessation, or "bracketing" of previous beliefs in order to understand ones' thoughts, judgments, or prejudices of everyday behavior to gain a greater sense of truth. Racher and Robinson (2002), nurse researchers, mentioned that bracketing is used as a strategy in phenomenology to help maintain objectivity and allow the essence of the phenomena to surface.

Hermeneutics

Language and conversation (words) are employed daily as the cornerstone of our access to understanding. Conversation is the exchange of language between two individuals that strives for an understanding of a certain topic. Therefore, language, as it

unfolds in the transcribed words, becomes the center of the experience related. Language is not merely a tool of understanding, it is the "universal horizon of the hermeneutic experience" (Gadamer, 1976; *Stanford Encyclopedia*, ¶ 3.3, 2005).

Existential phenomenology employs language as the method of inquiry to describe everyday experiences. Using a hermeneutic approach to analysis, hermeneutics is the procedure utilized to interpret the meaning of dialogue; i.e., the understanding of the written words (Byrne, 2001; Pollio et al., 1997). According to Gadamer (1976), hermeneutics "seeks to throw light on the fundamental conditions that underlie the phenomenon of understanding in all its modes…the application is comprised of all those situations in which we encounter meanings that are not immediately understandable but require interpretive process (pp. xi-xii). Thus through the interpretive process, the past meaning of the experiences becomes fused with that of the present day understanding (Gadamer, 1976). Pollio et al. (1997) describes the hermeneutic circle utilized in phenomenology is a continuous interpretive process that relates parts of the text (words and phrases) to the entire transcript culminating with development of a thematic description of the participants' experience of the phenomenon under investigation. Allen and Jensen (1990) describe hermeneutics as a very old science utilized to understand biblical texts. Hermeneutics, according to Byrne, originated from the Greek language and comes from two words, "the verb *hermeneuein*, meaning to interpret, and the noun *hermeneia*, meaning interpretation" (Byrne, 2001, p. 968). Thus, reflecting on history, hermeneutics has moved from a method to interpret biblical text to an approach used to describe experiences of individuals.

As utilized in the works of Heidegger, hermeneutics is aimed at interpretation of the phenomena. Thus, this method of thought is referred to as "interpretive" phenomenology. Heidegger noted that the person and the world are jointly formed; individuals are developed by the world in which they exist while simultaneously constructing the world through their experiences and background (Dowling, 2004).

Existential Phenomenologists

Martin Heidegger (1889-1976)

Moran (2000) stated that the German philosopher Martin Heidegger was noted as the first existential phenomenologist. As related by Heidegger (1927/1962) his thoughts centered on the "question of Being." He felt that an individual could only comprehend his or herself and their world by being a part of the world and by realizing their place in it. This understanding of oneself is existential and Heidegger thought the method of phenomenology permitted the *Dasein* (Being) to emerge and leads to an interpretation of oneself. Heidegger posits that humans are forever hindered by a world in which they are thrown. He indicates an individual's mood affects the perception of the world and the experience (Heidegger, 1927/1965).

Maurice Merleau-Ponty (1908-1961)

French philosopher Maurice Merleau-Ponty built his work on the applications of Husserl and Heidegger. Merleau-Ponty's method of phenomenology centers on the use of perception to illustrate experiences of an individual's life. Merleau-Ponty (1945/1962) stated that "phenomenology is the study of essence; and according to it, all problems amount to finding the definitions of essences…[it] is a philosophy for which the world is

always ‘already there’ before reflection begins…it also offers an account of space, time, and the world as we ‘live’ them” (p. vii).

Merleau-Ponty (1945/1962) indicated that an individual’s actions could not be clarified in conditions of unbending reactions to stimuli. Using the gestalt theory, he specified that one experience things next to a setting or structure; that stimuli are recognized and then described in an abundant and complicated environment. According to Merleau-Ponty, phenomenology is a method of describing not explaining or analyzing. With the use of phenomenology, he believed one learns through their experiences within the world and that in itself has meaning which leads to new knowledge.

Yalom’s Existential World Views

Another existential philosopher whose works have bearing on the experiences of military nurses in disaster response is that of Irvin Yalom (1980). He stresses that life is a struggle, which arises from an individual’s encounters with particular issues that are unavoidable in a human being’s survival within the world. Yalom defines existentialism as focused on four ultimate concerns of life: death, freedom, existential isolation, and meaninglessness.

Death is the first core conflict that each individual must address in his or her life. Eventually, each person will die. There is no escaping that ultimate journey. Each day that one lives, brings the person closer to death. According to Yalom (1980), “even in birth we die; the end is there from the start” (p. 30). Anxiety arises when the realization of the inevitability of death conflicts with the desire to continue to live.

In the existential meaning, freedom refers to omission of any outside framework. Converse to everyday experiences, individuals are not a part of a well-formed world with

built-in arrangements. Each person is responsible for his or her own actions and choices in life. According to Yalom, at the existential level responsibility is the basis for one's existence, life predicaments, and essentially one's own suffering.

Existential isolation is segregation both from human beings and from the earthly realm. Each person entered life in isolation and so shall he or she depart from it alone. It is that unbridgeable chasm that remains unspoken and explainable. It is a quality of existence that impacts the closeness one feels with family, friends, or significant others, even though it is intangible. "The existential conflict is thus the tension between our awareness of our absolute isolation and our wish to be a part of a larger whole" (Yalom, 1980, p. 9).

Meaninglessness is the final ultimate concern. Individuals need meaning to survive. Without it, there are no goals, values, or ideals to work toward. There must be guidelines, instructions that govern our path. Without these specific directions, life holds no meaning. However, based on existential freedom there is no certainty. Therein lies the conundrum. In Yalom's (1980) words "how does a being who needs meaning find meaning in a universe that has no meaning" (p. 423)? Each person within his or her own world devises their sense of meaning and establishes their place in life. Therefore, the existential impasse arises from a purpose-seeking individual being thrown into a world that is void of definition.

As military nurses leave the structured environment of their military lives, and enter the chaotic arena of a disaster, there is a strong possibility that each individual could be faced with one or all four of the ultimate concerns of life.

The Existential Phenomenology Approach

Thomas and Pollio (2002) stated that the existential phenomenological approach has become a popular method among nurses in the last few years. By using this method, nurses are afforded an opportunity to explore the essence of experiences of participants during a face-to-face interview. The method employed for the study was founded on Merleau-Ponty's philosophy as described by Thomas and Pollio (2002). Based on their process, the objective of the interview is to explore the phenomenon as described by the participants as they lived it, and for the researcher to gain a new understanding of the phenomenon through the perception of the participant. The interaction is shared between the participant and the researcher. According to the authors, the researcher seeks to establish trust and a conformable atmosphere within the research environment. The participant is the subject matter expert and the researcher is the tool. The discussion is centered on the individual's description of the world. The researcher does not lead the interview, but follows the participant through their story, remaining attentive and respectful throughout the interaction. The interview is then transcribed, and reviewed for themes and meaning units. When all interviews have been completed, "global themes, those observed across interviews" (p. 37) should be found within the separate transcripts also.

A formation of a thematic structure is shaped from the global themes. Often the thematic structure is displayed in a diagram that may or may not include features of the main grounds as well as figural characteristics of the phenomenon. "Figural" is a word used in phenomenology that indicates what is important or "stands out" to the participant regarding the phenomenon that was discussed. In existential phenomenology, when the

researcher considers an individuals' association with the world, it encompasses four influential existential grounds of human existence: others, time, body, and space. These four aspects are described as the "context against which human life and experience always emerged" (Thomas & Pollio, 2002, p. 4). After the thematic structure is completed, it is shared with some of the participants to validate representation of their experience.

Bracketing

Following the method delineated by Thomas and Pollio (2002), the researcher must first recognize his or her own presumptions regarding the topic of interest to be studied. In order accomplish this task, the researcher must bracket, or establish prior knowledge, biases and assumptions. A bracketing interview is conducted for this purpose. Valle and Halling (1989) noted that by bracketing, the researcher's feelings or thoughts regarding a phenomenon are brought to consciousness, thus he or she becomes aware of his or her own understanding of the event. Adhering to this process allows the interviewer to suspend any preconceived thoughts that would distort or alter the study during the interview process or in the analysis of the data. The researcher must remember that bracketing is not a single event and must remain cognizant of the need of re-bracketing throughout the study (Pollio et al., 1997; Thomas & Pollio, 2002; Valle & Halling, 1989).

Once the bracketing interview is completed, data are transcribed and analyzed by the Interdisciplinary Phenomenological Research Group. Themes that emerge illuminate assumptions or presuppositions so that one may avoid introducing bias during an

interview. Completing a bracketing interview also teaches the researcher about the essence of the experience for him or herself.

Pilot Interview

Continuing the procedures outlined by Thomas and Pollio, the last step completed prior to beginning the study is a pilot interview. The purpose of the pilot study is to test the interview question, to test the abilities of the researcher to conduct an interview, and the design of the study.

Human Subjects Procedures

Approval to conduct the study involving human subjects was awarded by the University of Tennessee in Knoxville. Following the established guidelines, a completed Form B was provided to the College of Nursing Human Subjects Committee and the Institutional Review Board (IRB). Additionally, as the study was supported by grant funding from the TriService Nursing Research Program, Uniformed Services University of the Health Sciences, in accordance with Department of Defense Directive 3216.02 dated March 25, 2002, granted IRB approval. Following both IRB approvals, the research commenced.

The informed consent process was explained to each participant as well as the risk and benefits of the study via email or telephone prior to the interviews. At the time of the individual face-to-face interview, informed consent was presented to each participant for signature. The researcher verified they understood that their participation was voluntary, that they could stop the interview at any time, or withdraw from the study at any time (Appendix B). In addition to the consent form, a single page demographic sheet was by

each participant (Appendix C). Participants were informed that all data obtained from the study would be presented in aggregated format without identifiers and disseminated in written publications, podium, and/or poster presentations. Additionally, I communicated to the participants that only the transcriber and I would hear the digital recording of the interview. I related to them that the transcriber would sign a confidentiality pledge prior to transcribing any interviews (Appendix F). Finally, I explained that the Interpretive Phenomenology Research Group and dissertation committee would review some of the transcripts after signing confidentiality pledges (Appendices D & E) for the purpose of assistance with data analysis. At the conclusion of the above-mentioned information, all participants consented to continue with the interview. A copy of the consent form was provided to each participant.

All interview data were entered into a file on my home computer, which is password protected and downloaded onto an external drive that was disconnected and locked in a file cabinet in my home office. All copies of the transcripts, demographic sheets, and signed consent forms were maintained separately in a locked file cabinet in my home office.

Risks

Participants

The primary risks to participants in this phenomenological research were emotional. Participants were engaged in talking about their experiences with disaster responses. While for some nurses this posed no unusual stress response, for others who may have been in disaster areas for a prolonged time, or who witnessed difficult or unpleasant events, emotional upset could have resulted from those recollections. In an

effort to minimize risk, volunteers for this research were pre-screened during initial contact prior to scheduling the interview to exclude the presence of ongoing mental health conditions related to combat, deployment, or disaster. The question asked of each participant was "Are you currently undergoing mental health treatment (including medication management or psychological counseling for PTSD or other disorders) related to combat, deployment, or disaster." All participants denied being on any medication or undergoing psychological counseling when they agreed to participate in the study.

At the time of the interview, I was very cognizant of any signs of increased stress or anxiety during the interview. If I witnessed any of these signs, I offered to either pause the recording or terminate the interview based on the circumstances at the time. Twice during the interviews, recordings were paused, but the interviews continued upon the request of the participants. As a military nurse, I have had mental health training in recognizing and dealing with combat stress. Having this expertise, I would have terminated the interviews if I felt the individuals were becoming distressed and directed the participants to the appropriate care. All interviews were held in areas close to military bases with mental health facilities.

At the end of each interview, I stayed with the participant and discussed other topics to help reduce any stress that may have arisen based in the recounting of the disaster response. As an added precaution, mental health crisis numbers and additional mental health resources were listed at the bottom of the consent forms left with each participant. Before I left their presence, I reminded the participants of the numbers should they wish to talk to someone in the near future.

Researcher

I had previously made the acquaintance of several of the military nurses who eventually participated in the study. One had been assigned to a prior duty station with me; one was an instructor at a university where I received education in the past; one I met casually at a conference; and another I met during the course of my doctoral studies. Although I had knowledge of these individuals as part of the large umbrella of the unified military family, I did not have any preexisting close informal relationships with them outside of military functions. At no time during our interactions was I aware that these individuals had a history disaster response.

Because I have a close sense of community with other military members, I knew there were possibilities of encountering my own emotional stress during the interview process. Therefore, to counter my emotional stress, I never scheduled more than two or three interviews per day and kept at least two to three hours between the interactions. I also wrote my concerns and reactions to the interviews in field notes and talked to my dissertation chair when a couple of the interviews were especially difficult. Staying with the participants for a short time following the interview also helped to reduce any increased anxieties I, or they might have encountered.

Benefits

The research interviews potentially could have been a cathartic and healing experience for the participants. Participation in this research allowed individuals to talk to someone who understood the military culture and language about their disaster response experiences. In hopes to influence better response efforts in the future, many participants openly expressed their desire to participate in the study. Several participants freely

admitted the training they received in combat readiness did not meet the needs for disaster responses. As all participants volunteered to share their experiences and the interviews were unstructured and open-ended, they were free to share any facet of the response experiences after the initial question. Some mentioned that they had not thought much about the disaster response until they were invited to participate in the research. Many expressed deep emotions ranging from ones of being fulfilled to those of frustration. Most classified the experiences as beneficial, a growth experience, ones in which they learned about the members of their team and about themselves. All mentioned it was something they would gladly do again. Overall, it was perceived that the benefits of the research study exceeded the risks.

Existential Phenomenology Method Applied

Bracketing Interview

Following the existential phenomenological method of Thomas and Pollio (2002), I (Felecia Rivers) completed a bracketing interview regarding my experience as a military nurse of responding to a disaster prior to beginning the research study. The data were transcribed and carried to the phenomenological research group for analysis. Although the only disaster I have responded to was during a field training exercise, I was amazed by several themes that emerged. Surprisingly, the overall theme was a feeling of connection, to the military culture and the essence of the military family. I had not considered these preconceived feelings or the influences they could potentially have on the study. The analysis revealed a theme of sensitivity to sensory things. I became conscious of the need to be careful not to interject or withdraw from sensory discussion.

Additionally, I had strong preconceived notions regarding psychological effects and disaster response. There was also the theme of differences. As I had been involved in deploying soldiers for combat, several times in the interview I related presumptions regarding differences in disaster and combat deployments. Finally, the concept of team was noted as being very important to me, in fact I expected it to be apparent in all phases of the disaster response.

Emerging Memory

As I became immersed in learning about the experiences of disaster response, a memory came flooding back. As a child and a young adult, I lived in an area that was subject to threatening weather, particularly tornados. During my childhood, I learned what to do and where to go when the warning sirens sounded. Later in my life, as a licensed practical nurse I was working in a hospital in my hometown. I floated to the different wards in the hospital normally functioning as the medication nurse. The only disaster training we had was to know that "Code Gray" meant a tornado had been sited and we were to move patients into the hallway if possible and close room doors to prevent injury from flying glass or debris.

One day, during tornado season, the sirens kept going off all day long, and tornados were sited several times. We moved the patients and beds out into the hall every time the sirens went off and then moved them back when the danger had past. Mostly there was only wind damage, but the anxiety of the constant sirens, the not knowing if one was going to touch down, the constant moving of the patients made us very weary. I can still see their faces. Trying to pass medications and food trays to patients who were unknown and were not in their rooms, was extremely stressful. To get a medicine cart

down the hall amongst everything else certainly made for a very interesting day...to say the least. I kept wondering if I had missed something, and I certainly was not on time with anything. It was a mess. Most of the wards held 30 to 34 patients. Many patients had family visiting who were stranded in the hospital with them. My children were in school and at the baby sitter. I could only hope they were safe. The same week, standing on the fifth floor of the hospital, I, and several other nurses witnessed twin tornados going down the river. That was a few miles away, but you never know if they will lift or change direction.

One never knows what Mother Nature will do, but we must be prepared to respond when the time arises. Even though this memory was not included in my bracketing interview, it is a memory I will never forget. Thoughts of preparation, anxiety, and fear, are other things that I must be mindful of, that must be bracketed when interviewing the participants.

Pilot Interview

I completed a pilot interview with two nurse participants who had responded to a disaster to test the research question and the research method. The interviews were digitally recorded and transcribed then carried the Interdisciplinary Phenomenology Research Group for collaborative analysis. It was decided that the research question should be slightly reworded, as it appeared to be a bit broad. The question was revised and another pilot interview completed. Again, I carried the transcribed interview to group. The question greatly enhanced the essence of the experience and needed no farther revision. Several themes emerged from the pilot interview, “not knowing,” “importance

of team," and "just being there." Based on the feedback provided, I began the research study.

S*ample and Recruitment*

Sample

All participants shared the following characteristics: (1) had in the past responded to one or more disaster events as part of the military, (2) spoke English, (3) were willing to share their story, (4) were able to recall and discuss their disaster experience, (5) were above the age of 21, and (6) were U. S. military nurse officers. Nurses were from several different branches of the military including U. S. Public Health Service. No participants were from the National Guard. There was no restriction to race or gender. All the nurses who participated denied an ongoing history of psychological distress or emotional crisis related to disaster or combat deployments. Therefore, none were excluded from the study. Eight potential participants who did not meet the criteria were excluded from the study. These military nurses had considered the response to Iraq, Afghanistan, and other military conflicts to be a disaster response. I thanked them for their interest in the study, but politely explained they did not meet the research criteria.

A purposeful, "snowball" sampling method was used to elicit participants for the research. Purposive sampling was to ensure that the informants' disaster response was undertaken as part of their military service. "Snowball" aspects of sampling supplemented the purposive. Through "snowball" sampling, participants who completed interviews were asked to assist by recruiting others who met the sample criteria. The interviews thus resulted in a rich description of the phenomena under research.

Recruitment

Recruitment was accomplished by several methods: (1) making the study known to military nurses who were familiar to the principal investigator, (2) asking participants to share information about the study with other potential nurse participants, (3) posting information in public areas of local hospitals and universities, (4) via dissemination actions taken by the different branch research consultants, (5) contacting the local reserve and National Guard units and (6) posting information flyers different Veteran Administration locations. Refer to Appendix A to review the information flyer.

Regional areas that were targeted included East Tennessee, extending from Johnson City in the north to Chattanooga in the south. However, some of the military nurse participants were located in other states as there are many military bases established throughout the United States. The researcher traveled to several different sites to accommodate the participants either by driving or by flight.

In phenomenological research, no set number of participants is pre-determined. Data collection continues until ongoing analysis reveals no new themes that add to the phenomenon description. When this level of data saturation is reached, data collection ceases. In this research it was not possible to give a firm number of participants that would be required to fully understand the experience of the nurses, but it was estimated that a minimum of 12 would be enrolled in the study. Creswell (2007) recommended a sample size of 2-25 participants for a phenomenological study. Therefore, the estimated enrollment of participants was appropriate. Recruitment for this study resulted in 23 interviews which were conducted until saturation or redundancy was accomplished. Following the recommendations of Thomas and Pollio (2002), at 21 interviews when

saturation was considered to have been met, two additional interviews were completed to ensure that the experiences of military nurses' in disaster response were fully described.

Data Collection and Transcription

Data collection

Potential participants contacted me via email and phone. I ensured they met the criteria of the study and established a date, time, and place to meet for the interview. I encouraged them to select a place that would be quiet, where we would have the least chance of disturbance and would be comfortable for them. I either drove or flew to the area the day before the interviews to ensure I was thoroughly rested prior to the interviews. Interviews took place in multiple locations to include university offices, participants' homes, quiet areas in a hospital, private conference rooms, private business offices, hotel garden, clinic offices, and a restaurant.

The face-to-face meeting always began with a brief introductory conversation to help to establish rapport. If I knew the participant, there was a brief sharing of events that had transpired since we last met, such as duty assignments, birth of children, or my progress in school. If I was meeting the participant for the first time, I disclosed brief information regarding my nursing background, duty assignments, and asked about their current duties or family to help reduce any uneasiness. I was cautious to avoid revealing any information that could be directly related to actual content of the study. I maintained a professional manner while listening respectfully and attentively to their stories without interruption unless clarification was needed. I had anticipated that most interviews would last between 45 minutes to 1 hour. However, based on the phenomenological method,

participants were allowed to talk as long as they wanted and/or needed to share their experiences.

Often, the participants would make comments at the conclusion of the interview, after the recording was stopped. I documented those comments in my field notes. On one occasion, the conversation continued longer than usual with additional information that I felt we needed to record the comments. I asked the participant if he/she would mind if we turned the recorder back on. When I received approval to continue the recording, I asked the participant to share the last bit of information again so I could have it documented for analysis in the transcript.

I used a digital voice recorder to document the nurses' stories during the interviews. Prior to the start of the interview, I would test the equipment to ensure it functioned properly. I always had additional batteries and a second recorder in case something failed to perform correctly. I would have the participant say a few words to test his/her voice for volume and clarity before beginning the actual interview. The test recording was erased in the participants' presence. I briefly explained the procedure we would follow during the interview, obtained written consent for participation, obtained a completed demographic sheet, and verified that the participant did not have any questions prior to beginning the interview. At that point, I began the actual interview. Each interview was initiated with the research question "When you think about your disaster deployment, what stands out for you?" Additional probe questions were asked of each participant for clarification of previously mentioned information and to encourage the description of their experiences. The probe questions were similar to "Tell me more about that." "How did you deal with that?" "Could you clarify that a bit more?" "Previously

you mentioned that…would you share more about that?" When it appeared the interview was coming to a close, I always asked the participant if there was anything else they would like to add that we had not discussed. If there was no additional information, I concluded the interview by thanking them for their time and the sharing of their experiences. Frequently, the participants would tell me how much he/she appreciated being asked to talk about their experiences. Several stated it was the first time anyone had asked them outside of an official report or discussion.

The interviews lasted from 27 minutes to one hour and 10 minutes. During the interviews, the participants described the experience in rich detail, as if they were reliving the details during the responses. None of the participants asked me to stop the interview, although I did pause the recording when two individuals became emotionally distraught and could not speak through the tears. After a bit, I asked the participants if they wished to continue. I received a slight smile, or a positive nod, and completed the interviews. Almost all of the participants asked for a copy of the dissertation when it is completed. Many shared pictures following their interviews.

When I left the interviews, I made entries in my field notes. The notes included information regarding the setting, interruptions, disturbing noises, body language, additional comments after the recording ended, and my reactions to the interview. I always felt both physically and emotionally drained following an interview. Often, I would have a headache. If the interview was particularly painful, I talked to my dissertation chair, discussed my feelings with a nurse colleague, tried to read a novel, or just had my husband hold me if he had accompanied me on the trip.

Transcription

As quickly as possible, I sent the digital recordings to the transcriptionist, who had signed a confidentiality pledge (Appendix F), to transcribe the interviews. The transcriptionist was familiar with the procedures for transcribing phenomenology interviews. The interviews were transcribed in the exact language utilized by the participant to include pauses, changes in speech patterns, inflections, and tone of voice. After the transcriptions were completed, I verified that the words matched the digital recordings. Any difficulties with verbiage, such as military or nursing language, were corrected prior to beginning analysis.

Data Analysis

Line-by-line analysis of all transcripts was completed following the existential phenomenological method outlined by Thomas and Pollio (2002). To interpret the transcribed interviews, I employed the method of hermeneutics to identify key words, phrases, and themes thus illuminating the essence of the military nurses' experience of responding to a disastrous event, from their expert perspective of those directly affected. Hermeneutics is a process that seeks to identify/discover specific meaning in parts of the text when compared to the entire transcript. Ultimately, this process is used to understand the meaning of the phenomenological experience across all transcripts obtained in the study.

Employing hermeneutics in this study, interpretation began with the initial examination of small parts of the individual participant's transcripts, which then permitted an understanding of how separate pieces related to the whole document. Thus, this facilitated the comparison of individual participant's texts to one another transcript,

affording an initial understanding of the data. Next, consideration of key phrases and words led to a greater comprehension of the texts. This was a continuous process, moving forward and backward within individual transcripts and across the different transcripts, and finally circling back to common themes as the essence of the experience unfolded.

As the researcher, I analyzed all the transcripts, examining verbatim statements to identify meaning units, recurrent themes and patterns of meaning, and eventually arrived at a unified description of the phenomenon of being a military nurse providing disaster response. In consultation with my dissertation chair, a nursing professor who was trained in phenomenology, several of the interviews were examined collaboratively to ensure I had a thorough understanding of the nurses' experiences of responding to a disaster. Additionally, I used the field notes to: (a) assist with verifying the accuracy of transcription, (b) contribute to a fuller, richer understanding of the informant's experience, and (c) reduce bias by revealing events that could have influenced my interpretation of meaning of the experience.

Furthermore, six of the transcripts were selected to be analyzed with the Interdisciplinary Phenomenology Research Group. All identifying information had been removed from the transcripts before group analysis. In order to ensure confidentiality, military branch identification was deleted, personal names were changed, military sites were either renamed or deleted, and the name of the disaster withheld. The only demographics provided were gender, place of interview (office, conference room), number of years in nursing at time of disaster, and area of nursing specialty. Disasters were referred to as either natural or man-made. Prior to the reading of the transcripts, members signed a confidentiality pledge (Appendix E).

Each transcript was read aloud to the group. Two people participated in the reading, one as interviewer, and the other as the research participant. The hermeneutics method was additionally applied in the group setting. As the group progressed through the transcript, members could call a halt to the reading, to discuss words or key phrases that stood out to them. Often, these words or key phrases related to other sections of the texts. This was noted by the group as the readings and discussion continued until the transcript was completed. At the conclusion of the reading, discussion included overall consideration of commonalities in the transcript as it related to the transcript itself and previous transcripts that had been presented in the group. Through this discussion, the researcher and the group tried to identify words, key phrases or metaphors that might lead to describe the chief attributes of themes. Themes are patterns or relationships that describe the meaning of the participants' experience of the phenomenon that was under investigation.

After identification of the themes, I developed a thematic structure that was supported by verbatim texts. I shared my thoughts of the themes and diagram with the Interdisciplinary Phenomenology Research Group. The group sought to determine if the themes and diagram truly represented the experience that was researched. Following the validation of the themes and structure by the research group, I shared a summary of the research findings and thematic structure with several of the research participants, seeking verification that the outcomes of the study authentically represented their experiences. Having input from the group and feedback from the participants helped to minimize bias in interpretation of findings and enhanced the rigor of the study.

Methodological Rigor in Qualitative Research

In qualitative research, the goal of achieving rigor is to provide a clear, concise understanding of the meaning of the participants' experiences as they were lived. This task is accomplished by gathering rich, detailed descriptions of the phenomenon in the words of the participants, leading to information that will enhance practice in the future.

Rigor is achieved through the use of several techniques: (1) the research begins with a single focus or topic to be explored, (2) an appropriate research design is selected which answers the research question, (3) the researcher brackets previous thoughts or assumptions to prevent biasing during interviews and data analysis, (4) the study outlines in detail methods employed to collect and analyze the data, (5) interviews continue until saturation is achieved, (6) ethical concerns are monitored and ethical principals are maintained throughout the study, (7) the researcher brings the reader into the world of the participant through examples selected that support the patterns and relationships, and (8) the knowledge garnered from the study adds to previous information relating to the topic (Creswell, 2007; Meadows & Morse, 2001).

Denzin and Lincoln (2005) cited several criteria regarding rigor that warrant consideration. These are credibility, dependability, confirmability, and transferability. Researchers who address these concerns strengthen the trustworthiness of their study data.

Credibility

Credibility refers to the confidence in the truth of the data and interpretation. According to Polit and Beck (2004), two essential methods to strengthen data credibility are (1) organizing the study in an approach that enhances believability and (2) taking

steps that demonstrate credibility. Steps to increase possible believability are (1) prolonged engagement that is defined as "the investment of sufficient time collecting data to have an in-depth understanding of the culture, language, or views of the groups under study," and (b) persistent observation which refers to "researcher's focus on the characteristics or aspects of a situation or a conversation relevant to the phenomenon being studied" (p. 430).

The field notes that I kept throughout the study, strengthened credibility of the data collected. The notes recorded both the reaction of the participants and researcher. Notes included participant comments, thoughts on interview surroundings, and comments of participant/researcher interactions. I was focused on the relevant aspects of their experiences throughout the interview by listening attentively. All interviews began with the initial question and I followed the participant into the experience based on their individual stories. Each interview continued until the participant indicated they were finished.

Furthermore, member checking and peer review add to data credibility. Member checking "is the process of returning to selected informants, to discuss the findings of the study, and validate if the findings are representative of the experience of the informants" (Connelly & Yoder, 2000, p. 76). I either emailed or mailed a copy of the summarized findings to the participants and elicited their feedback on the accuracy of the study results regarding the essence of their experiences. Peer reviews involve meetings with individuals who are familiar with either the phenomenon being studied or the method being employed. In the sessions, the researcher presents written or oral summaries of themes that have emerged, and their interpretation of the information for validation of the

data (Polit & Beck, 2004). Throughout the research study, I carried interviews to the Interdisciplinary Phenomenology Research Group for feedback and assistance with transcript analysis. Additionally, when all transcripts were analyzed, I carried potential themes and supporting verbatim statements to the group for their input and validation of the data.

A final aspect of credibility is the reliability that is placed with the researcher, as data collector. Polit and Beck (2004) noted that the researcher should include brief information about him or herself when establishing rapport with the participant and in the research report. In my beginning conversation to establish authenticity with the participant, I explained I was a military nurse in a doctoral program interested in the topic their experience of disaster response. I provided brief information about my nursing background and my studies in disasters. I did not disclose my rank, or time in service. Information regarding my nursing credentials is provided in the Vita section of the dissertation.

Dependability

Dependability in qualitative data addresses the consistency and stability of the data over time and conditions (Polit & Beck, 2004). The dependability of the data was established by the thorough description of the research method utilized in the study. Additionally, the transcripts were read initially, then re-read to ensure the themes that emerged in the texts were consistent across the different transcripts. Peer reviews supported the establishment of dependability. Feedback and suggestions were considered as the complete data was interpreted.

Confirmability

Confirmability speaks to the process that affords the reader a clear understanding of the steps and methods employed in the study. It also seeks to establish similarity among the different participants' experiences with reference to the data's accuracy, relevance, or meaning (Polit & Beck, 2004). In qualitative studies, particularly phenomenology, bracketing and the field notes are techniques to substantiate confirmability. Both the methods of bracketing and field notes were employed in the study.

Bracketing prior to proceeding with the study reduced the potential for biases during the interviews and in the analysis phase. The field notes established an audit trail throughout the interview and data analysis process. Dates and times of the interviews were documented as well as location and the environment of the interviews. Specific information regarding reactions and expressions of emotions were included. These written data provided additional information to support confirmability.

Each interview was digitally recorded and stored on an external drive. The stored recording facilitated opportunities for continuous review in conjunction with the transcribed text to ensure accuracy of the data. I reviewed all transcripts individually and collectively noting similarities and differences between and among the data. In addition, the Interdisciplinary Phenomenology Research Group reviewed several transcripts and provided comments. As well, the group assisted the researcher in verifying the relevance and accuracy of the themes and thematic structure. Finally, several participants were given a summary of the study inclusive of the themes that emerged for their review.

Participants provided feedback regarding the relevance and accuracy of the information based on their experiences of responding to a disaster.

Transferability

The criterion of transferability pertains to the utility of the findings and is assessed by those who may find the outcomes applicable to their practice. Providing a rich, thick description of the study, permits readers to formulate thoughts regarding transferability. To ensure this criterion is met, the researcher should review the generated data and reflect on two questions. (1) Is the presentation powerful enough to convince the reader the findings are accurate? (2) Does the information have richness or relevance to practice? Efforts to demonstrate transferability of the findings were grounded in rich description utilizing verbatim statements of the research participants. This information is annotated in Chapter 4. Within the realm of nursing knowledge, the study identified the need for disaster courses to be added to nursing academia. Additionally, disaster preparedness training should be developed within the different military nursing branches. These recommendations are discussed in greater detail in Chapter 5.

Reliability

Another criterion regarding rigor that warrants discussion is reliability. Even though several of the previous criteria have mentioned ways to strengthen rigor, reliability has not been specifically addressed. The purpose of reliability is to establish thematic consistency. Therefore, if an independent reader adopting the same frame of reference expressed by the researcher, can also envision what the researcher saw, reliability is met. Another concern of reliability refers to the replication of thematic structure. It is feasible to anticipate that similar themes would be found in a new study

based on the same phenomenon although the same words may not appear (Thomas & Pollio, 2002). In this study, the criterion of reliability was satisfied when the members of the phenomenology research group were able to visualize what I saw. Employing the aforementioned methods helped to validate methodological rigor in the study.

Summary

The purpose of this study was to explore the experiences of military nurses in disaster response. This study used the existential phenomenological method as described by Thomas and Pollio (2002). In this chapter, I provided an overview of existentialism and phenomenology, described human subjects protection, sampling and recruitment procedures, the methodology process, and methodological rigor. Chapter Four presents the findings of the research.

CHAPTER 4

FINDINGS

Introduction

The purpose of this study was to gain an understanding of the essence of military nurses' experiences in responding to disasters. This chapter presents the thematic structure founded on the themes that emerged from the research. Information regarding the phenomenological world of "others" and participant demographics will follow the introduction of themes and thematic structure. I then offer the two contextual grounds of organized military culture and disaster experience. I will address the contextual grounds separately and then provide the respective themes and supporting exemplar quotes. The chapter concludes with a summary of the findings.

Research Participants

Participant Demographics

Twenty-three registered nurses from different United States military branches participated in study. They took part in a range of calamitous events, including natural and man-made disasters, that occurred between the beginning of 1989 and the end of 2008 (see Table 4.1). It should be noted that the length of time from disaster response to interview did not have any apparent impact on participants' ability to recall details. In no instance did participants need to search for memories. Recollections were and clear and meticulous, regardless of when the disaster occurred. The length of their deployments varied from one day to six months dependent upon the nature of the response mission. All participants were officers.

Table 4.1

Overview of Disasters Discussed and Year of Occurrence

Disasters	Year
Loma Prieta Earthquake	1989
Red River Valley Flood	1997
Adana-Ceyhan Earthquake	1998
Hurricane Mitch	1998
U. S. Embassy Bombing, Nairobi	1998
Pentagon Attack	2001
Washington, DC Anthrax Attacks	2001
Hurricane Ivan	2004
Bethel, Alaska Flu Epidemic	2004
Soto Cano Air Base Crash	2005
Hurricane Katrina	2005
Hurricane Rita	2005
Muzaffarabad, Pakistan Earthquake	2005
St Louis, MO Tornado	2006
Hurricane Gustav	2008
Hurricane Ike	2008
Tropical Storm Hannah	2008

At the time of the interviews, the minimum years in service were six with 33 years representing maximum time served; average was 17. Years in nursing at the time of disaster response extended from four to 37 years, with average being 14. At the time of disaster response, participant educational levels included ten with a baccalaureate degree in nursing, eight with a master of science in nursing, one with a master of public health, two with a master of arts in business, and two with a doctor of philosophy in nursing. The modal education level of education attainment was master's degree. Nursing specialties practiced were emergency/trauma (7), medical/surgical (7), critical care (4), community health (1), cardiovascular (1), flight nurse (1), OB/GYN (1), and hematology (1). Table 4.2 provides additional participant demographic data.

Table 4.2

Overview of Participant Demographics

Interview Number	Participant Pseudonym	Gender	Military Branch	Nature of Disaster	Age at Disaster	Number of Disaster Deployment(s)
1	Ellen	Female	Navy	Natural	58	1
2	James	Male	Air Force	Man-Made	34	1
3	Stephanie	Female	Air Force	Natural	31	2
4	Jackie	Female	USPHS	Natural	46, 47	2
5	Bonnie	Female	USPHS	Natural, Man-Made	34 31	1 1
6	Nancy	Female	Army	Natural	47	1
7	Robert	Male	Army	Natural	40	1
8	Debbie	Female	Air Force	Natural, Man-Made	49, 52* 51	3 1
9	Heather	Female	Air Force	Natural	33	1
10	Henry	Male	Army	Natural	51	2
11	Tabitha	Female	Air Force	Natural	33	1
12	Christina	Female	Air Force	Natural, Man-Made	34 27	1 1
13	Julie	Female	Air Force	Natural	36	1
14	Cynthia	Female	Air Force	Natural	42	1
15	Doug	Male	Air Force	Natural	33	1
16	Alex	Male	Air Force	Natural	36	2
17	David	Male	Army	Natural	48	1
18	Scott	Male	Air Force	Natural	38	2
19	Dennis	Male	Army	Natural, Man-Made	32 28	1 1
20	Lisa	Female	Army	Natural	35	1
21	Sharon	Female	Army	Natural	42	1
22	Cory	Male	Navy	Natural	39	1
23	Cameron	Male	Army	Natural	43	1

* Note: Age remained the same for the third natural disaster deployment.

How the Stories Were Gathered and Told

It not only matters who the participants were, or the content of the themes to follow, but also the way in which their stories were *shared.* All began with a discussion

of military culture that so clearly defined them and their world view. Those discussions were marked by confidence and strength. But when the discussion shifted away from the familiar context of the military culture, and to the actual disaster experience, the tone shifted dramatically, and the mood became more somber.

In times of catastrophic events, as local medical aid becomes overwhelmed, military nurses are called to render assistance. In those periods of distress, they work hard, trying to serve and fulfill their mission, striving to maintain the inner strength expected and demanded by the military, at times struggling to be strong. After the crises pass, and the disaster response mission is ended, they move on, often sharing little about their experiences with others. As I listened to military nurses who volunteered for this research and revealed their lives to me, I felt empathy for them. During the interviews, the participants described their experiences in rich detail, providing exemplars of both triumphs and struggles.

As the participants began sharing their experiences of the journeys into the disaster events, many broke direct eye contact with me. Often as their eyes focused on the floor or a spot on the wall while they talked, it was if they were reliving their time in the disaster zone. One participant's words were especially heartrending, but insightful as he shared the following comments about his memories.

> I remember…that memory is almost like HD [high definition]. Those memories… are kinda black and white…and you have some that are crystal clear…you remember the time of day, the temperature, the breeze blowing…how fast it was blowing, people running back and forth…you can almost see their faces sometimes…when they are coming down the hill…and the looks on their faces…and how they are looking for…some hope or understanding. (Dennis)

There would be moments when the participants were verbal, and animated, almost rushing to explain something that was positive or exciting about their experience. At those times, I was pulled into the moment; integrated into their experience, racing along with them. But, at other times, their voices would become almost a whisper; sometimes tears would be shed, as they withdrew into themselves. The pain they were still experiencing became obvious on their faces even though their disaster response efforts may have occurred several years in the past. Several participants coughed or cleared their throats when talking, as if it were hard to voice their words. During those times, the narrative would break in flow as they moved away from certain uplifting topics toward others that were painful or emotionally upsetting.

At other times, participants would smile when describing a difficult situation or laugh at something they expressed as frustrating while shaking their heads. When they became angry, typically the speech was loud and more pronounced.

As the interviews began to draw to a close, the participants described the importance of their involvement in the disaster response. Some of the participants spoke of how their assistance was essential to their civilian colleagues as well as the victims. One participant shared her thoughts on the salience of their response actions and her civilian colleagues. She observed one major difference between disaster and war. In combat, the rank structure provides clear direction on reporting. In disaster, it is unclear who is in charge.

> We are a structured military asset that must be able to integrate into the crisis arena with our colleagues, without rank, while sharing our expertise. Our civilian counterparts need our help during these traumatic times. They cannot do it by themselves. However, we are not in charge, we merely bring order to the chaos,

> and then pass the baton. These efforts require lots of coordination and communication…We bring the flag and a sense of relief into the chaos. (Sharon)

From my own personal perspective, I must admit that listening to their stories had an impact on me. I heard the sadness in the participants' voices as they told of trying to help the victims locate missing loved ones. Additionally, I saw the emotions on their faces as they spoke of the severity of loss suffered by the victims and founded on the devastation that was still apparent months later. Sometimes I cried with them.

At the end of our time together, nearly all thanked me for asking about the experience. Several stated it was the first time they had really thought about their experience with non-war or non-combat related calamity. Sometimes it was the first opportunity they had to talk about what had occurred and how it touched their lives. In an effort to help them decompress and gather themselves, I always stayed past the interviews to talk about little things like family or jobs, and the military in general. Frequently, as we engaged in this end-of-meeting sharing, they would drift back to a topic that emerged in the disaster interview, and discuss it again for a little while. It was not unusual for us to share a hug before I left.

Thematic Structure

The thematic structure derived from the interviews with military nurse participants contain five polar themes: "Nature of War" versus "Nature of Disaster;" "Known" versus "Unknown;" "Structured" versus "Chaos;" "Prepared" versus "Making Do;" and "Being Strong" versus "Emotionality." One other theme; "Existential Growth" illuminates how the participants' view of being-in-the world changed based on their

disaster response. Figure 4.1 provides a pictorial overview of the two contextual grounds with themes. In reviewing the figure, one can visualize how the military nurse participants moved from an organized military culture into that of the disaster experience.

The dark square surrounding the contextual ground of organized military culture represents the rigid, structured environment of the military lifestyle. The cloud is a free-form figure, without structure, ever shifting as it represents the constant change encountered within a disaster experience. The dotted lines that surround the military nurse in the center of the diagram indicate that the participant is shifting, adapting to the environment as the challenges present themselves in the chaotic situation. The line that leads away from the military nurse is dotted and green, indicating learning and growth. It leads to the theme of existential growth that is also surrounded by dotted lines. As the participant reflects on his or her disaster experience and position in the world, the dotted represents the growth, becoming, transcending. As one looks at the structure, one notices the arrows within the white space pointing in toward the center. These arrows represent the themes of the organized military culture: “Nature of War,” “Known,” “Prepared,” “Being Strong,” and “Structured.” In addition, the arrows represent the journey of the participants as they move away from their familiar military life and into the disaster experience. The “Nature of Disaster” is an “Unknown” world of “Chaos” where military nurse participants must “Make Do” with what is available, and they encounter the “Emotionality” that ensues from working within the disaster experiences.

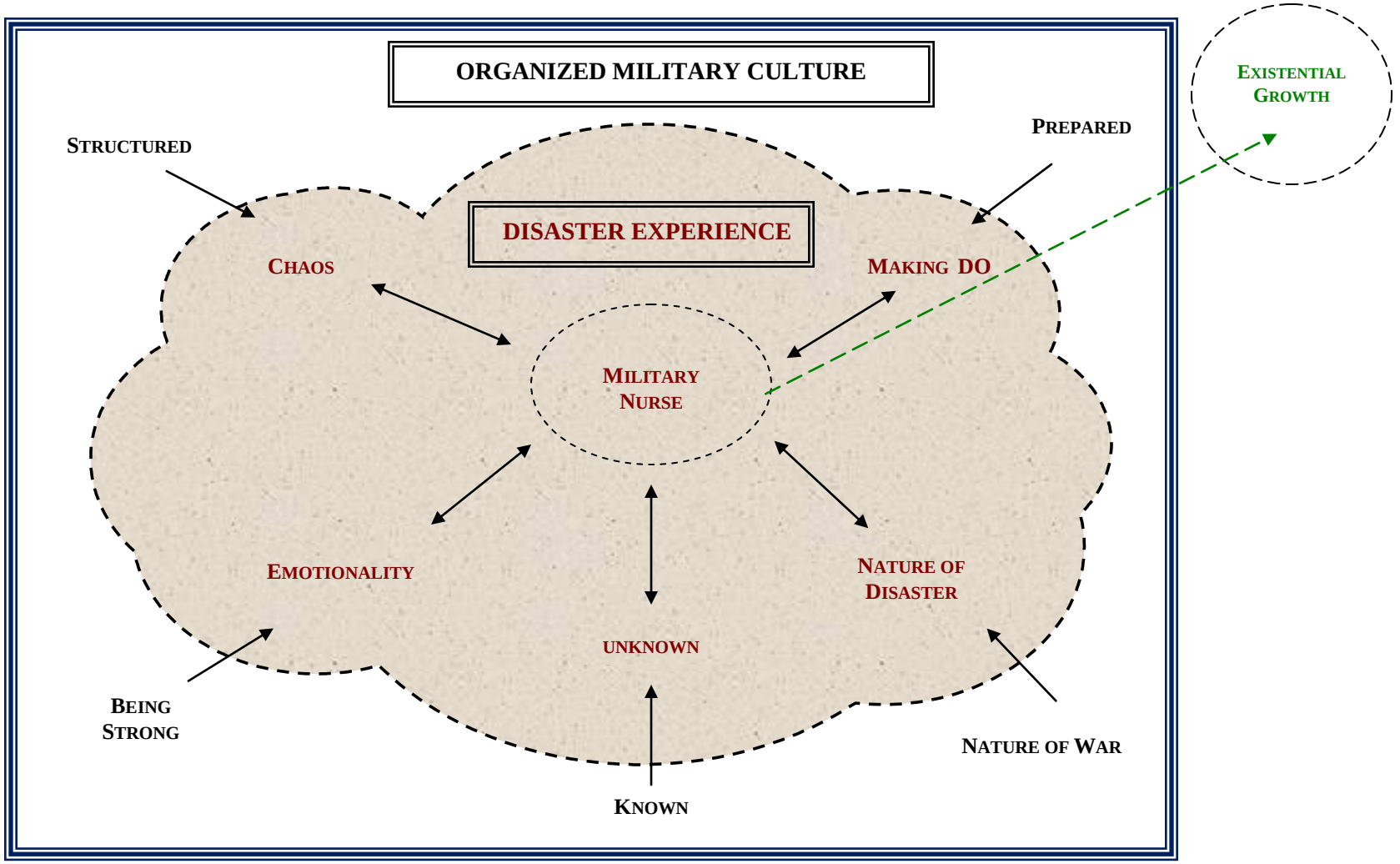

Figure 4.1 "Into the Unknown": Military Nurses' Experiences in Disaster Response

Phenomenological World of "Others"

The essence of the nurses' experience of responding to a disaster was concentrated in the phenomenological world of "others." In this world, according to Thomas and Pollio (2002), life is experienced through the encounter with significant individuals; subsequently, bonds are formed between those who have lived the experience together. In this research, which confirms the contention of Thomas and Pollio, the participants initially formed relationships with their colleagues who were responding to the disaster event. Several participants related that they did not know their teammates when they first left, but learned how to work with one another as they became familiar with each other. The special link that was established flourished. They became a family that was always cognizant of the welfare and safety of each individual, both physically and mentally.

Additional relationships were formed with the other disaster organizations. As the participants collaborated with the different relief agencies, they were able to create partnerships that were essential for obtaining food, water, and logistical supplies. Communication was another important element in the disaster relief. The participants were able to link with local non-governmental groups to establish a network with other military and civilian health care providers to facilitate care and evacuation procedures.

The final type of relationship within the world of "others" was the participants' association with the victims of the disaster. The military nurses listened to the individuals' stories as care was provided; hearing about the tragedies each had endured. They tried to comfort family members who were being separated on different evacuation flights due to one member's injury being more severe than the other's was. Some of the

nurses worked with patients who were expected to die, keeping them comfortable as best they could, and then placing them in body bags to be carried away once they had expired.

Themes and Exemplars

This section on themes and exemplars is divided into two parts, which are illustrated by Figure 4.1: the contextual grounds of military culture and disaster experiences. The first section presented here relates to the contextual ground of the military. This is offered as the introductory segment because military culture served as the reference point for all the participants' stories. Before they went to their disaster deployments, they were at their core, soldiers, and they viewed the world through the lens of the military. Therefore, in discussing their disaster experiences, what participants spoke of first was their knowledge of war and combat. The whole of their disaster response was lived and told, in comparison to military life and training. It is safe to say that for every point that is made about the military and its combat orientation, the converse is true about participants' views regarding disaster.

Themes within the Contextual Ground of Organized Military Culture

The themes that emerged against the contextual ground of *Organized Military Culture* were "Nature of War," "Known," "Structured," "Prepared," and "Being Strong." In order to facilitate their discussion of disaster, the participants often described their disaster experiences in contrast with what they knew best: experiences of the military and war. Several began their narratives by observing that their experience of disaster response, when compared to their expectations of war, was simply "different."

> You know, you make sure that things are in place…and you do some, some mock drills and so forth and so on for the community disaster. Military participates in that….But even though there is overlapping, there is a big difference. There is a huge difference [in disaster]. (Ellen)

In the structured environment of combat, nurses knew what their roles would be, approximately where the combat support hospital (CSH) would be situated, or the ship would be harbored, or where they would land to evacuate the sick or injured military members. They knew who they would be providing care for, followed previously written policies and protocols, and had established logistical support within the combat area.

Nature of War

This theme encompassed the participants' description of the differences between war and disaster and what combat itself actually represented. They spoke of expectations, the pace of the war, and other things they knew would happen.

"In conflict you know who you have to be afraid of."

One major difference between war and disaster that was identified by participants was the nature of the enemy. In war or combat, the enemy is a real person, with a face or name, often with a recognizable uniform. In war, the soldier is fighting an equal, a person comprised of skin and bone, emotion and training. None of this is true in disaster, where the enemy is a vague entity, or nothing more than the aftermath of the event. Two participants discussed these differences.

> In conflict, you know who you have to be afraid of. (Robert)

> How do you confront an enemy that's already passed through and now is causing havoc in another state when you are focusing on the people in community? The [survivors] are not the enemy. (Ellen)

Another major difference noted by two participants related to the contrast in expectations between war and disaster.

> There's a difference in expectations during war time. I had been to war. I knew what was expected then…We knew what should be done and what our mission was. (Ellen)

> I had flown in a warring country… and you always expect that you are going to get shot at when you are flying contingency missions. (Doug)

For the following participant, the pace of actual war missions stood out as a major difference.

> In deployment for six months you may have ten missions over the course of six months so the rest of the time you aren't doing much… or you are doing paperwork. (James)

Another participant noted the difference between organization in military warfare operations and the organization (or lack of it) in disaster. At least in warfare or combat missions, strategic operations have been planned and communicated to those participating in the mission.

> Military is geared for military operations and they do that well, very well. When we are over there [in the war], it's organized. (Alex)

In providing medical care in wartime field hospitals, military nurses follow standards similar to Joint Commission on Accreditation of Hospital Organizations (JCAHO). Participants observed, however, that in disaster there are no standards or precise plans that can be counted on to apply. Participants had to hope that basic nursing skills would be enough.

> There's big differences…I guess you would say…[in war] you try to fall on Joint Commission standards somewhat…documenting what you do. (Cory)

> When you're first doing this [providing care in disasters], it's a little more seat-of –the-pants initially. (James)

The Military as "Known"

In the theme of "Known," participants expressed what they knew about war and how to fight a war, which was substantial when compared to a disaster that they were largely unprepared to confront. The participants referenced differences in levels of training that were always focused on readiness for combat, the mission, and their roles in a combat environment.

"We were given the training, so we knew what to expect."

Two participants noted that the military training that was provided always focused on combat readiness; that narrow focus led to a lack of readiness in disaster response.

> [In war] we were given the training, so we knew what to expect…they told us [what war conditions were like] before we got there…you kind of knew what to expect. (Cory)

> Because of the nature of who we are [as military], there is more focus on preparing to go and being ready to go to war. (Ellen)

In combat the participants knew the type of job each would be expected to perform unlike the shifting of roles that occurred during disaster responses.

> [In war] you know exactly what your job is. (James)

During wartime, military missions are centered on battle and engaging the enemy. In a catastrophic event, the focus is on providing care to those who have lost everything or almost everything they own.

> You know…[in war you are] focused on conflict and fighting. (Robert)

On the battlefield, there is a designated place to erect the field hospital and sleep tents. Soldiers and enemy prisoners of war are those who receive care. Manifests are prepared in advance for patients being evacuated and the location is known. Conversely,

in disaster, sleeping areas are often unknown. The patients are the victims of disasters and are evacuated without any paperwork.

> [In a combat situation] you know where you are going to live…You know who you are going to get, [to evacuate] there is always a list of the patients that you are going to get [for transport for care]. (Tabitha)

The Military as "Structured"

Within this theme, the participants discussed the organization and control characteristics of the military culture. The nurses described how the collaboration between the different military branches contributed toward the organization of the mission.

"War is more structured."

In conflict, there are policies and procedures that are preplanned and must be followed when operating within the combat arena. Some policies include but are not limited to the following: security procedures, maintaining noise and light discipline at night (speaking in low voices and using red lens covers on flashlights), always moving in groups of two for accountability (buddy system) and the wearing of combat gear at all times. In disasters, strategic planning was absent due to the rapid response efforts.

> The war, it really is more structured…everything is kind of structured. (James)

> You wear your body armor and you have weapons and such but [war is] very controlled. (Tabitha)

Organization is apparent in the war zone. When evacuation is required, the different military entities collaborate and communicate efficiently to ensure the wounded are processed appropriately through the military system. In contrast, efficient communication was lacking in the disaster arena.

> In the military, when we are over there [in a war zone] it's organized. They have people that tell you exactly…what you are getting… here you are moving them. (Alex)

Combat: is "something we had prepared for."

The military nurse participants illuminated how training and the presence of logistical support influenced their readiness for war.

> [Combat is] something we had prepared for…you are trained to take care of people who are in harms way with the notion of getting them back in the field…[and] logistics are there and you are prepared. (Ellen)

> We were given the training so you kind of starting preparing yourself. (Cory)

The following participant describes how the essential personal gear, supplies, and other equipment needed to function in combat deploys with the unit.

> You bring everything with you…so you are prepared. (Jackie)

Being Strong

The final theme within the contextual ground of Organized Military Culture encompassed how the participants dealt with the emotional aspects of things that are witnessed in the line of duty. The nurses described how individuals could not possibly understand the emotional impact of events unless they were there. The military culture has a saying, "Suck it up, drive on." This is a mindset used in coping when engaged in stressful events.

"We are supposed to be the strong ones."

Members of the military are expected to demonstrate strength and perseverance in all aspects of their duty. Emotional endurance is included in that mindset. The narratives from the following two participants are testimonial to those military expectations.

> [In the military] we are suppose to be the strong ones…[In combat] if you are involved in something where you can't totally share everything that's going on…you have to kind of keep some stuff inside that you can't talk about…at the end [of the rotation] it becomes a little bit more difficult [to keep it inside, it builds up] because you [just] can't share everything that goes on there. (Julie)

> I just suddenly felt terrible…And, and I wanted to cry. I had this lump in my throat and I couldn't cry because I had all these people around and I was the commander… I have to be strong. I don't think I consciously said, Well I have to be strong and do this. I think I just did it. And then it would break through ever so often. (Cynthia)

Similarly, another participant noted that in the nursing profession, when the things that are witnessed become too difficult to mentally tolerate, the health care provider tries to distance him/her self from the task, in order to cope.

> I guess the way we approach so many things in nursing [is] sometimes we do all we can to forget that that's a human that we are working with just so we can cope with what we are doing. (Doug)

In traumatic circumstances, nurses must be cognizant of their own emotional welfare, lest the health care provider become a victim unable to function effectively to render the care that is needed.

> I [was thinking that] I can't be emotional about this…it makes you dig down deep, quickly because if not…you just melt down and you are no help to anyone at that point. (Tabitha)

Overview of Disaster Experiences

For the military nurse responding to a traumatic event, the environment was constantly evolving; and in response to these shifts, nursing roles changed often; this differed from the structured environment and predictable roles of combat deployments. In contrast to war, the quickness of response demanded by the disaster environment allowed very little time for preparation. The participants described "not knowing" what to expect

with the disaster versus the numerous hours spent training and preparing for combat as evidenced by the following comments of two participants.

> With disaster relief, we never had any training. There is no training or any kind of formalized training put together…to say…this is some things or tools you can put in your tool box to take with you or things that you might see. (Cory)

> Even though you think you have trained, you are never ready for those kinds of disasters… No matter how much you think you are prepared, for mother nature to come in and knock you on the butt, you have no idea what you are dealing with. (Ellen)

Furthermore, logistic support normally provided during wartime was lacking during the disaster. Disaster-specific information available prior to disaster deployment was sparse. This meant that nurses' anticipated or planned roles often shifted upon arrival at the scene. Military nurses who participated in this study reported that they frequently worked outside their scope of practice: assisting in clean up details, constructing needed equipment, participating in morgue duty, engaging in search and rescue missions to locate survivors, and numerous other jobs that had not been previously part of the nurses' scope of practice. One commonality between combat and disaster, noted by many of the nurses was that in both instances they worked long hours in an austere environment.

The nurses also noted other contrasts between war or combat and disaster. Nurses had to establish relationships with both civilian and military organizations for communication, health supplies, water, food, and other essentials required during the response. They frequently found themselves "making do" the best they could within the different situations. At times, living conditions were even worse during the disaster deployment than in combat; at times, this was due to the smells and potential health hazards that were a result of the disaster.

On many levels, both functional and emotional, the disaster experiences touched study participants in many ways. In a practical, functional way, the disaster response provided an opportunity to practice skills needed for future disaster responses or an upcoming combat deployment. Such skills included quickly packing the CSH in readiness for deployment, convoying from one location to another, erecting the CSH in an austere environment, having to swiftly relocate due to danger, mastering new disaster-specific skills, and learning to depend on their senses in providing care without the benefit of technology. One participant addressed two situations in which disaster deployment added to their combat readiness.

> We did all of the training on electronic medical record for a combat environment at the disaster site…we could practice and it helped us because when we used it in combat everybody knew how to use it so we didn't have to do it there. We practiced…[setting] up the hospital. We had to do that in an austere site. So everybody had to do that to learn. We were very concerned about safety. We wanted to make sure people were doing it correctly and that we could get operational [within the appropriate timeframe]. (Sharon)

On an emotional or psychological level, participants learned about themselves, and the individuals who worked with them. Many of the nurses spoke of having a "growth experience," resulting in their becoming thankful and appreciative of what they had, things they had previously taken for granted in life. In some instances, it changed their thoughts on the harsh realities of society in which we live. These changes in perspective stemmed from witnessing the manner in which some individuals reacted following the disaster, for example, the vandalism, and pilfering within the disaster area. Several participants stated that they were so involved in their own world (military culture) that they had forgotten how different the civilian world may be; therefore the disaster response became a realty check. As a coping mechanism, they tried to shut off

the things they heard, saw, and smelled, but eventually, several verbalized that "you have to feel" in order to deal with what was occurring. The nurses spoke of "battle buddies" as a safety and coping mechanism. This concept emerged from war type involvements, but was also applicable to disaster responses. They were never alone and watched out for each other. The deployment team became very important. Frequently, at the beginning of the disaster deployments, the team members did not know one another, but quickly the different members became bonded as a coherent unit, aware of the significance of their newly constituted team. "They were all they had" to lean on; depend on during the traumatic events. They became like a family as bonds were established. This family bond was the link that contributed to their psychological survival during their disaster experiences. Another essential element that affected the participants' disaster experience was the impact of time on arrival into the disaster arena.

Influence of Time on Response Experiences

The individual participants' experiences of disaster responses were influenced by the timeframe in which they entered the disaster environment. If the deployment occurred shortly after the catastrophic event, triage and emergent care would be provided for the victims. At this stage of the response, the participants would often describe the intensity of the scene as overwhelming and chaotic. As the time passed and the event lengthened and moved into the recovery phase of the disaster, the care administered frequently centered on the disaster workers and injuries they sustained during the initial disaster response. The intensity of the relief efforts decreased and patient care slowed. During this timeframe, their stories illuminated the devastation they witnessed in the communities

and the emptiness of the city streets. One participant stated he sensed an eerie quietness in the desolate area due to the lack of people and traffic. Finally, as time stretched into weeks and months following the disaster, assistance began to focus on rebuilding efforts and preventive health care.

Throughout all phases of the response efforts, participants diligently did their best while rendering aid to disaster victims. Several participants stated they would go again despite the challenges they faced.

> Proudly, we were asked to serve. We brought discipline to a chaotic environment and a welcomed sense of relief to those in need. It is a memory I will never forget, an experience I would gladly participate in again. (Sharon)

One participant offered his opinion regarding disaster responses and the opportunity to participate should the chance arise.

> I truly hope everyone at some point in time has a chance to do a humanitarian mission because it's the other side. Right now, we are so focused on conflict and fighting, and in a humanitarian mission…it's such a different environment from being in conflict…it was just a great experience. (Robert)

How the Stories Began: What Stood Out: "Just every three minutes, someone would die."

In addition to the central themes embedded in their experience, several elements of the nurses' narratives stood apart. Among these key features were descriptions of the thing that stood out to them in their experiences. While some of these pivotal things constituted the themes, often these elements were merely setting the stage for thematic discussion.

Several described the environment they entered. Their initial thoughts about what stood out to them as they reflected on their experience were broad, and included what they saw and what they heard.

Environment

Human devastation was articulated by several of the participants in the study as what stood out for them. In addition, the thought of death surfaced as a concern, particularly in one participant's mind as it was the first time he had observed the expectant category being utilized. The counter-intuitive management of impending death was an element of the environment that many participants found distressing. Doug mentioned in his narrative that the use of the expectant category is anticipated in combat but found it shocking to see it employed in disaster responses. In combat, care is given to those most likely to survive; however, it is withheld from those least likely to recover. Within military field hospitals, there are four triage categories: Immediate, Delayed, Minimal, and Expectant. The immediate category is designated for those who require prompt surgical intervention to survive. The delayed category is assigned if waiting for surgery will not compromise the outcome of the patient's life. Minimal categories are utilized for the soldiers who are ambulatory with superficial wounds that can either be self-treated or treated by another non-medical soldier. The expectant category is employed when it is obvious the individual will die regardless of the amount effort rendered. Normally, at this level, the soldier is given pain medication to maintain comfort until he or she expires. In civilian health care facilities, with the abundance of resources and supplies, all efforts are made to sustain human life in emergency situations. Unfortunately, in disasters, resources are limited, and time is of the essence; therefore, care is provided to those most likely to survive. For health care providers in the civilian environment, it is inconceivable to imagine that this category would be exercised.

> Probably [what stands out for me was] just the amount of human devastation that I witnessed. It was…the first time I had actually seen an expectant category used…seen people in an expectant triage…just every three minutes somebody would die…they would just take them away…it was so mechanical…I was just taken back by it because it was like, Holy Cow! We really do this… [Death]…there are times when I can still smell it but I smelled it for months…over time it's gone away but every now and then when I think about it I can smell the death in the airport. (Doug)

> [What stood out was] the complete devastation of the city… when the hurricane hit…we immediately knew it was going to be devastating for the city…I visually saw it on the news…And then when we deployed…you could see the devastation miles and miles out. (Sharon)

Within the topic of the environment, several other participants described a sense of shock and disbelief, the overall intensity of the disaster and witnessing the extent of devastation.

> I guess [what stood out for me was] seeing…just the physical change in an area I was quite familiar with and how widespread it was…how a catastrophic disaster levels the social economic status that you have in a community…folks who had lost everything…it was just so widespread and there was so much grief and sense of loss...those are the things that just stood out for me. Truly, it was shock and disbelief. (Ellen)

> The thing I remember the most…[was] the amount and quality of the rain that hit…the overwhelming thing…just the intensity of it…and worry about the environment surrounding us…we had to start sandbagging, trying to preserve things in our camp like our sewage disposal plant…trying to preserve the airfield…we worked for about five to six days…around the clock…to keep the camp up and running. (Nancy)

One participant related how mind-boggling the effect of third world poverty was to him, while for another, the complete shut down of society was foremost in his mind.

> [What stands out is] the poverty that you can't imagine in our country…then to have what little bit people do have…Maslow's needs kind of stuff destroyed or taken away…it's pretty mind-boggling compared to when you come back here…to have a table and a chair and a roof over your head and to have clean water…you just take water for granted. (David)

> I think the thing that stands out for me the most is how society and medical

> services kind of came to a stop…during the disaster relief…you really got to see how all of a sudden in this one little area of the country, things changed so drastically…it was a shut down of society…things that you were used to being able to do on a daily basis now all of a sudden… it's just not available to you anymore. (Cory)

In phenomenological studies, as a participant begins to share his or her experience, it is quite common for the individual to begin by discussing the mundane events within the environment that occurred just prior to some specific event. The following participant demonstrates that commonality. He began his story with the beauty of the day, as it was figural to him and served a background for what occurred shortly thereafter.

> [What stood out was] the type of day that it was…ironically the weather and the smell in the air…It [started out to be] a beautiful day. I had been outside and I was thinking, Wow! What kind of a day is it going to be today? (Dennis)

Dual roles

Several participants described the conflict of being a victim and then changing roles mid-stride to become a care provider. One participant expressed how this discord produced a sense of blurred boundaries. As a victim, she had lost as much as others in her community; therefore, she was able to connect with the survivors. Through them, she could share her personal concerns as the victim even while functioning as a care provider.

> I was stationed at an Air Force base and we had the flood in 1997. I had to evacuate my house...so I think probably what stands out is that, not only was I part of the team that was taking in victims, I was a victim...there were times those feelings blurred, just because I knew what they were facing. I really understood what these people were going through…that's what stands out in my mind…that it was a double role for me in that event. (Cynthia)

What They Saw: "In the dead of the summer, you would see the leaves, little buds of spring coming out again, nature was taking over."

Through the participants' words, we gain an understanding of what they saw initially, and throughout their disaster response. Some things mentioned were positive, but many more were negative and certainly left a lasting impression on the participants.

Two participants described the change of the environment, which they knew quite well. One participant reflected that even in the face of adversity, the world began anew, trying to bring balance to the unstable environment. Another participant expressed how quickly the storm could destroy what you take for granted. Something as generic as a bridge produced a feeling normalcy, but the devastation generated a sense of loss.

> You'd see the trees that were maybe one or two leaves left on it …I mean the trees that used to be [there], they were gone…[but] in the dead of summer…you would see the leaves, little buds of spring coming out again, nature was taking over. (Ellen)

> There was a stream that went through the camp…just watching the rise of the stream turn into a raging river and we actually watched the trees start to float down. What was once a small stream turned into a river and there were trees floating down, going by us…we used to be able to walk across [the bridge] and the bridge had washed away. (Nancy)

On September 11, 2001, America suffered a great tragedy. Beginning with the two planes crashing into the World Trade Center, a third airplane hijacked, plummeting and killing all onboard, to the final plane slamming into the Pentagon, the citizens of the United States witnessed the devastation via their televisions. However, this participant described what he saw first hand as he entered the compound of the Pentagon to provide emergency care.

> I could see black smoke in the air...I could see the Pentagon…see that the majority of the building was still standing…you could see people lying out [on the ground]…needing help…waving arms…you could see where the plane hit the

> building…you could see a big ICAN [out of AMERICAN AIRLINES] where the plane had exploded. (Dennis)

What They Heard: "It was just kind of an eerie quietness."

Enmeshed in the disaster response, the participants shared the things they heard. This included reports the participants received and stories told by the victims and other responders.

Following the disaster, buildings and streets became vacant; the only sounds distinguishable were the drumming of the helicopter blades moving in and out of the city as the survivors were evacuated from the hazards of the devastated city. The noise and chaos of the previous days had given way to an unnatural semblance of calm. As he viewed the number of helicopters moving across the sky, the participant alluded that the sight was odd for a city within the boundaries of the United States.

> It was just kind of an eerie quietness other than the helicopters constantly coming in to land and then take…to escort people out…I knew I was in the United States but it was...it was very surreal. (Cory)

Evacuation procedures were not moving quickly enough. The participants described the weather as hot and humid. The ambulances were sitting on the tarmac for hours at a time awaiting transport for the patients they had on board. Oxygen began to run low. Patients normally on ventilators were manually bagged the entire length of time and some succumbed to the elements. Lives were lost awaiting flights.

> We got the reports that some of the…patients had already died on the flight line…civilian hospitals were telling paramedics not to bring any more patients out to the flight line because they were bringing the patients out but because we couldn't get them loaded quickly enough and leave quick enough. (Alex)

During the different disaster responses, the participants listened to stories from the patients and from their colleagues. Stories that portrayed the hardships that both the victims and patients endured during the initial days of the disaster.

> You would meet some of the folks that had survived the disaster…you hear some of their stories and their frustrations. [Also] some of response nurses were able to work in hospitals. Their stories were of what happened during the actual flood and how people had to be evacuated...they had people on the roof awaiting helicopter evacuation. I heard stories of how they did not have electricity, they had to bag people…for hours, and hours until help arrived. (Julie)

The initial elements that stood out to the participants segued into the narrative that provided the hermeneutical words and phrases from whence the themes of the disaster experience emerged. Five themes were formed that represent the ground of disaster experience.

Themes within the Contextual Ground of Disaster Experiences

Within the contextual ground of *Disaster Experiences*, the themes of "Nature of Disaster," "Unknown," "Chaos," "Making Do," "Emotionality," and "Existential Growth" emerged.

This second section relates to the experience of the military nurses within the disaster event. In contrast to the familiar surrounding of the military culture, the participants described events viewed through the lens of health care providers in an unknown territory, the disaster arena. They expressed how, in the chaotic environment, nothing was predictable. The structure they knew in the military culture was verbalized as lacking or absent. As they ventured forward, they quickly reported basic nursing skills were important. They had to rely on their eyes and touch for much of their care, as

modern instruments of technology could not be utilized due to the lack of electricity. Adapting to the environment and becoming innovative in designing essential equipment that was needed, provided the participants with skills that could potentially be used in a combat situation. As they learned together, they became a more cohesive unit, which served them well within the disaster arena.

Themes and Exemplars

Nature of Disaster

Expressed in this theme is the description of the type of support needed during a disaster response, the pace of response efforts, and the uniqueness of the situation. Within this theme, the participants continue to compare war with disaster.

"In disaster, every waking minute you are doing something that is valuable."

In contrast to the slower, more predictable build-up and progression of combat deployments, these participants provided insight into their inner experience as they responded to the rapid onset and quick pace of the disaster response. The sense of urgency is apparent in their words.

> Disaster…is just so much more concentrated [than war]. In disaster, you are doing everything, every waking minute you are doing something that is valuable and interesting and has a beneficial effect to somebody…What actually stands out is, a) how quickly everything is done when there is a pressing need…It was quick…and b) actually how good our exact disaster response[can be] when we have a driving need for it. You know what stands out; in a negative way, what stands out is how quickly Americans move when it is [in] their interest. (James)

> What stands out the most is getting there quickly. You don't have much time to really plan for a [disaster] deployment…you just get there quickly…I had to scramble to make sure I was packed and ready to go. So the first thing that comes to mind is getting there quickly. (Jackie)

> An overwhelming sense of, 'Oh my God,' the commander was like…'You are getting ready to go, you are on alert…Get ready, have your bags packed…Our chief nurse said, I don't know what you all are going into…but just be careful.' (Tabitha)

The following two participants described the swiftness of the response actions in hours and days, clearly defining the difference between the lengthy planning of war to that of the short notice of disaster deployment.

> We had…very short notice…we had a few hours notice and then we responded to the hospital…and within an hour we were on a plane and we flew directly into the disaster area. (Alex)

> One day, you know this disaster has happened and you are watching on the news and literally the next day you are on a bus…going to another city to catch a helicopter out to the ship [which] is steaming…towards that disaster area. (Cory)

Even in the direst of times, a unique opportunity is afforded the military nurses, as they work and collaborate with their civilian counterparts, learning how to function together for the greater good of the civilian community. Following the disaster event, the victims will need moral support and encouragement as they have lost either all or almost all of their worldly possessions. The participants were there to share in their hardships and help the survivors to work through their problems and toward re-establishing their lives.

> I think what stands out the most is that I was finally doing something for the civilian population. I hadn't gotten the experience of actually helping the people in the United States. (Stephanie)

> For me, as a military person going into a civilian type of response, it was an opportunity to meet …different people from different nursing backgrounds…being asked to do a specific task in helping with the relief…working in a call center…[where] people would call to say that they were missing a loved one or friend…we would use an intake form…and try to match it with the bodies that were still in the morgue. (Julie)

Providing care to the local population following the disaster presented a dilemma

for one participant about decisions made by those who chose to stay in the community. In one aspect, she was happy to provide the care that was needed, but at the same time, she was frustrated. Seemingly, the participant may not have considered the fact that the individuals who stayed behind may not have had a choice about leaving the area, due to health, finances, or family obligations. Perhaps this was not the first hurricane the residents had encountered. Surviving previous storms may have influenced their decision to remain in their homes. There are numerous possibilities. What is troubling, however, is that the nurse reacted to the decisions of the victims based on her own way of thinking which could have influenced her care albeit the narrative did not indicate that was the case.

> [During disaster response, it was good] being there to help the people, especially those who can't help themselves. [However, I encountered] frustration…in that sometimes I don't understand why these people got themselves in the situation…when people were told to leave their homes and seek…a safer environment…and they didn't do that, then it's hard for me to understand that they chose not do that. (Debbie)

In war, flying critical care missions are expected for soldiers, but were not anticipated in disasters. The participants had prepared for evacuating healthy individuals out of harm's way, not the critical high maintenance patients they received with little or no information. In the disaster environment, the aircraft was filled with the critical care patients as compared to a combination of walking wounded and a few critical patients in war. This was much more than they had anticipated.

> In disasters, you just don't ever expect to fly critical care missions that you are going to fly within your own borders to that level…This wasn't something that any of us had ever really expected to be a part of. (Doug)

Prior to any wartime deployment, many hours are spent in developing strategic plans to ensure that all the necessary equipment and support is ready and in place when the need arises. Unfortunately, the quick response to provide disaster assistance did not allow for the months of previous planning. Therefore, multiple problems regarding disorganization were verbalized by the participants.

> The biggest thing that stands out for me is the disorganization between the people who were in charge of our deployment. We were ready to move the patients, but we would get some place and our support personnel or equipment wouldn't be there, or we wouldn't have a plane that worked….It was frustrating…we wasted a lot of time…we weren't as effective as we could have been. I don't think the military really thought it all through…it was so disorganized. (Alex)

Caring for disaster victims in the United States was not a familiar task. Normally deployments were outside the United States taking care of soldiers in a war type environment.

> [Providing care is] always a unique situation, especially when you are doing that on your homeland...We weren't doing it somewhere away [overseas in a combat arena]. We were here in the United States, taking care of ordinary American civilians. (Sharon)

"Going into the Unknown"

In the theme of "Unknown" the participants expressed the uncertainty of the disaster experience. The lack of preparation for the disaster and scarcity of information prior to deployment was illuminated in their stories. The participants described the continual change that occurred during the response efforts. Frequently, through their words, you gained an insight of the learning that occurred as they rendered care during the relief efforts.

> [When you first go into a disaster] you know, [you are] going into the unknown, not knowing what [you] were doing. (Lisa)

Three of the participants expressed how there was uncertainty before and during the response efforts.

> There is a level of uncertainty. In [disaster] you don't know where people are. You don't know their names, the names are confused…you have an extra body and you don't know where it came from. (James)

> You didn't know. They said a hurricane was coming and it was going to have far reaching…reaching damage…so extensive that it would be…in big proportions, so being in our branch we don't know, what we are walking into, our theater is unknown until you get into it…The uncertainty…the need to put yourself in situations that you don't know what you may encounter…We didn't know how bad it was going to be until we were entrenched in the middle of it. (Jackie)

> We didn't know what we were going to get when we got there. We didn't know if the airport had been damaged in the hurricane. We didn't know if there was going to be electricity. We didn't know if we were going to have water, running water and stuff. (Stephanie)

No one really had an idea what to expect prior to his or her arrival at the disaster site. The participants were unsure as to where they were going upon arrival, what their roles would be, or whom to talk to regarding the assistance that was needed. Moreover, there was a concern for their own safety as they wondered about when and where the storm would hit. This was extremely difficult when the nurses normally have all the information they need to successfully complete a mission prior to embarking on the deployment.

> When we first got there I didn't know what was going on…What do we do? Who do we talk to?...What's going on? What do ya'll need? What's the deal? We really didn't understand the true impact of what was really going on. (Tabitha)

> We didn't know…if we were going to be providing medical care for the patients in route, or if we were just going to be a vessel of transportation. (Heather)

> We really didn't have any idea what to expect going in because there was no real communications coming out of the city prior to arriving…Not knowing is always hard…There was a lot of not knowing. (Doug)

> Just sitting around wondering when the storm was going to come in…where it was going to end up showing up and if it was heading towards the city…Nobody knew much about anything. (Scott)

The lack of communication and information continued to have a bearing on the participants' disaster preparation and response actions. Not only was it unknown as to what type of equipment and supplies to prepare for the deployment, they were not provided information regarding the damage in the area. Relief efforts were delayed as a result of road problems and use of ground transportation to the disaster site.

> We didn't know exactly how many patients we were going to see with the limited time that we were given to pack our equipment and medical supplies, we didn't know exactly what to bring…we had to go…about 150 miles to the epicenter of the earthquake…we had to convoy [go by a line of trucks] to get there. We didn't realize…the massive damage that the earthquake had done…the road network was cut off or limited…there were a lot of landslides. (Cameron)

Another element of the unknown was the constant change the participants endured while rendering aid, never knowing from one moment to the next what where they would be or where they would sleep.

> Our mission was constantly evolving…we were mustering [received briefs] several times a day…we didn't know how bad it was or how good it was going to be [in the disaster area] until we were entrenched in the middle of it. (Jackie)

> You never knew, a lot of times, from one moment to the next, what you would be doing or where you would be stationed…Constantly being changed…we didn't know from one night to the next where we were going to sleep…we found out where we were suppose to be moment by moment…there was just a lack of awareness or lack of the immediate goal. (Bonnie)

No one was allowed to go anywhere within the disaster zone without someone accompanying them. It was not safe as one could become disoriented and lost within the

disaster area. In the military, no matter what kind of deployment it is, war or disaster, there is always the need of accountability of where soldiers are should situations change rapidly which warrants new information or relocation. Also, there is an element of danger which originated from hazardous materials following the storm. Displaced people within the community added to a sense of insecurity.

> We enforced our buddy system. You didn't go anywhere without somebody else knowing where you were at. In the airport, you could get disoriented. You could get far away. In any disaster situation, you have to be careful about security. You want your folks to be secure…because in a disaster, there are hazards, downed wires…fluids all over the place…there's debris…people are displaced…you just don't know…it's unpredictable. (Sharon)

Deploying as a team with those who you know is important for work and flow especially during traumatic times. To ensure the deploying teams have appropriate staffing, new individuals are assigned to deploy with the group. It is not unusual for these nurses to come from several different units across the numerous military installations within the specific military branches. Frequently, these individuals have not met or worked as a team, even in field exercises. Occasionally, it even becomes necessary to deploy individuals with very little clinical experience. At those times, seasoned nurses must ensure that the new nurses receive the support that is needed to provide proper care.

> I was put with a group I had never even met before…I was the lone nurse put with a group…and had never worked with them.[I] did not know any of them…[in order] to work [with them] and flow as a team. (Debbie)

> We had several brand new lieutenants or second lieutenants without a lot of clinical experience…[who] deployed with us…so we had to make sure that we had adequate number of…trained nurse corps officers that would be…the preceptor…for the new nurses. (Cameron)

Another component of the unknown pertained to the team members. Prior to the

disaster, they had not been tested as a group, to know who worked well together. They had no idea what the strengths and weaknesses were of each member. As time progressed, they were able to reorganize teams so that the members complemented one another. The disaster deployment allowed the participants to learn about the team members they were with, their strengths and weaknesses and who would do well on future deployments.

> [In a disaster] you learn who you can depend on…who is competent, who wasn't…who you could trust…who would follow through…who was going to be the baby and the whiner in the group… But as a team you did learn. You learned each other's habits…what each other's strengths were. You learned how to communicate without actually having to talk [just] how to read each other. (Robert)

> You learned the people who didn't do well under stress, who didn't cope so well with deployment or being away from their family and friends…people who were team players and those that weren't…I learned who I wanted on my team in the Middle East…so we kind of got to select our teams for future operations and we kind of got to pick the best of the best to go with us. You learn a lot about people [during a disaster]. (Lisa)

Another factor that pertained to the unknown was the ability of the responders to transfer clinical skills learned in a classroom into a field environment. One participant related that learning in a classroom on manikins or from a textbook is not the same as utilizing skills in the real world while in the field environment. They developed confidence and assurance that they could perform as they fell into their roles within the disaster environment.

> It was learning what you were doing which is different from just learning…you can sit in a room and read about how to do it and you can practice on a dummy but it's not until you do it with somebody [that] you learned who was going to direct the show and who was going to do what and people fell into their roles. (Robert)

Cultural diversity

A final factor of the unknown related to cultural diversity. Several participants alluded to the importance of understanding and working within unfamiliar cultures. All the participants who referred to the differences of culture responded to disaster events that occurred in a country outside of the United States. Even though these disasters occurred outside the boundaries of American soil, there is equal opportunity to encounter cultural differences within the confines of our own country. Not being aware of or respecting cultural differences can hinder relief efforts.

In one disaster response, a participant described the differences in the culture that shocked the military nurses who provided the aid.

> The absolute poverty…they live in…stick and stone and mud wattle houses…they are peasants…who cook with charcoal or wood inside the house…their hygiene is a little poor…it is an agrarian economy or bartering economy…the literacy rate is very poor…but fact is they do not know any difference…their outlook on life is phenomenally positive. (David)

This responder continues his story regarding the harm that may be caused to the local people if health care responders do not function within the constraints of the country's medical protocols.

> [In the U.S.] we love to immunize people…but [in other countries the health care providers] don't want us messing with their immunization system…they don't have shot records…they immunize based on location…your upper left arm is for tetanus…lower left arm is for typhoid…so when a health care worker goes to the village and ask, "Have you had the shot in the upper left arm?" they'll say, "Yeah"…that's how they keep track of stuff…their system of health care is primitive by our standards…[but] it's effective….well meaning physicians and corpsmen…didn't know they were doing more harm than good…doing drive-bys [immunizations]. (David)

Not only did they possibly duplicate immunizations through good will; working outside of the country protocols could potentially result in other cultural damages.

> We are here to help…it is not just going out there…without local nationals around who speak the language…without local nationals around us…now we've undercut….we've undermined the local government and the local health care because we are giving them something that it appears that their local folks can't provide…actually causing more trouble. (David)

Similar to the previous participant, the following responder also relates the importance of being aware of cultural differences, figuring out what works for the country regarding health care and learning in the process.

> The nature of the country…it is a third world country…wasn't a lot of infrastructure… you realize that health care… is dependent on the infrastructure of the country…you had to be aware of the political situation…you had to adjust to it…figure out what would work best for them…[within their system]. (Robert)

Pride, according to one participant, is a cultural attribute that may interfere with relief efforts that being offered.

> We had a lot of the non-governmental organizations that came in…the people were very prideful people…they wanted it to appear that they were able to take care of their [own needs]…after the earthquake...we flew in food…that they wouldn't use…being prideful and wanting to be self–sufficient…can stand in the way of getting help. (Christina)

When rendering health care in another country, it is imperative, according to another participant, that the religion and other cultural differences are respected to facilitate good relations between the different cultures.

> The country was a predominately Muslim country…their culture is so much different than the western culture…we have to respect that…we have to observe and make sure that we were sensitive to their culture and their religious needs. (Cameron)

The same participant provided several specific examples that illuminated some differences and difficulties encountered while providing assistance to the disaster victims.

> In American medical system…the nurses and the docs…take care of the patients…in their [Muslims] culture the whole family is involved…10-15 family members at the bedside…their culture is that way…family members take over care of the patient at night so they stay at the hospital…the family members expected to stay at our hospital…our space is very limited...so that was a challenge. (Cameron)

> We are going to do surgery…in the states you have to remove the clothing of the patient…over there…they go through surgery wearing clothes…so that 's a challenge…just picture a patient crashing…we had to start IV's…put in an NG tube, etc. but the family refused to remove the clothing…that was difficult…but we maintained their dignity…if we did remove any clothing…we have to cover them up immediately…the differences between males and females as far as treatment…male patients…they are not used to being touched by women or nurses…so that can create a discomfort for the patient. (Cameron)

The differences in the standard of care with regard to surgery and waiting for information about family members, was described by a participant who had the opportunity to visit and work in a hospital outside of the United States. She also illuminated the differences of daily essentials that are taken for granted in our country.

> The standard of care is certainly not the standard that we are used to…but it was awesome to provide the service for those people…they transport the patient from the surgical area to the ward…they are wheeled outdoors…into another building. If they wanted a clean sheet to sleep on, their family member had to bring one…if they wanted food, their family member had to bring the food…there was no waiting area…family members waited for their loved one outside. (Debbie)

Chaos

The word "chaos" brings to mind a sense of confusion and disorganization. Merleau-Ponty (1945/1962) illuminates the phenomenological essence of chaos. He states, "Nature is *not* in itself geometrical…human society is *not* a community of reasonable minds" (p. 65). He observes that human experience causes us to reflect on the outcomes and meanings of those historical chaotic events (Merleau-Ponty, 1945/1962).

Within the narratives, the participants often made comparisons of previous combat experience to explain the chaos of the disaster. The expressions of the participants as they responded to the different disasters reflect their initial reaction to the chaos, at times claiming the chaos in order to care for themselves and to provide the needed assistance. Interactions with the media also influenced the level of chaos that prevailed.

"It was just like chaos…everything that you knew was right didn't exist."

The participants described their initial impressions of the chaos they witnessed or endured as they entered the disaster environment. In their routine military lives there is always structure, but in the disaster arena structure is lacking or simply absent. The disorganization of the response was one element that exponentially increased the level of chaos.

> Here, [in the disaster] it was just like chaos. You are so used to structure and all of the sudden there is none…everything that you knew was right didn't exist anymore…all of the sudden that piece of the puzzle that's normally organized before you get there doesn't exist anymore. (Tabitha)

> It was such a hyper involved thing…in this [disaster] nothing is really structured that well. (James)

> There were ambulances everywhere. There were people everywhere. No one seemed to have a good grasp about what was going on. (Scott)

> [In the disaster area] that was the start of what I saw as a dysfunctional system… for a whole 24 hours including one trip already into the area we wasted, not moving anybody when the hurricane was coming and we could've been flying missions that whole time…there was so much disorganization. (Alex)

As participants entered the disaster area, there was a sense of shock that came from witnessing the number of people congregated in one place. The astonishment was

compounded by the visual condition of the survivors. Many weapons were confiscated from amongst the disarray, producing feelings of unrest.

> It was pure chaos…you couldn't see space between the people…It was chaotic… there was a certain amount of chaos because of the medical triage that was going on and the treatment that was going on. That was chaotic in itself, then you throw in the chaos of looking down the stairs into the baggage claim area and seeing the thousands of people just wanting to be next and get their turn to get out. That just elevated exponentially the level of chaos that you could sense in the airport. (Doug)

> I don't know if I will ever forget going down that escalator…I saw patients and people everywhere…they were lying on the conveyor belt, some were on litters...some were just…flat on the floor without a litter. Patients sitting in wheelchairs…sitting on chairs, tons of elderly. Some had no clothing, some that had just a paper gown. (Stephanie)

> There were just thousands and thousands of people… people just everywhere… you could hardly even walk through because there were so many people…and then we got word that many of the people had weapons… many, many weapons were confiscated. (Debbie)

The process of triage coupled with the evacuation procedures influenced the chaotic situation. As the participant describes the situation of "herding" the people through, his words lends a mental picture of the magnitude of mess he encountered.

> Different branches of service were [set up], helicopter flights were coming into and out of the convention center…and the people were being…[just] being herded through. (Cory)

While processing a load of patients for evacuation, the weather wrecked havoc on the operations, intensifying the confusion within the environment and shortened the window of a safe flight out.

> We finally were working on our last airplane, getting our last patients loaded onto the airplane…all of a sudden…we are loading patients, the wind kicks up…it is unbelievable…all of the sudden there is all this stuff flying in the air, the wind is so strong then it starts pouring down rain…then it lessened up and we had like fifteen minutes…for all those planes that were left there to get the heck out of there. (Debbie)

One would have never considered being in danger while attempting to move patients for evacuation. However, within the pandemonium of the disaster, people do not always react naturally. Ambulances came under fire from snipers as they were transporting patients; therefore, due to safety issues, the drivers refused to move any more patients.

> [I was told] we have a problem. The ambulances are refusing to go out again because they are getting shot at. Our ambulances are taking fire and they are refusing to move anymore patients. (Tabitha)

As the participants began to work within the area of the disaster, they began to take some control of the disorganization. However, the element of time added to the chaotic situation.

> In something like 92 hours we air-evaced I think close to 2000 people… We were loading planes pretty much like every 30 minutes to an hour…they told us to hit the ground running…we worked around the clock…loading planes around the clock…we worked in the middle of the concourse…[and] sleeping at the next gate…there was noise…all the gates were filled with people helping. (Stephanie)

Another element of chaos relates to the destruction caused by the different disasters. Debris was piled everywhere, and boats were on the highways producing a sense of disorganization within the community. Truly, nothing was where it belonged.

> To say it was a mess is an understatement…it was a mess…it was the biggest mess I've ever seen…it was very chaotic…the debris that was just all around…It was just this unbelievable destruction…all I see are these blue tarps on all these homes. (Ellen)

> There were boats on the freeway, boats where they shouldn't belong…on the canal…you could see the coast guard ships or other ships grounded into the levies just a mess…the mess [that was] caused by the storm. [In another disaster, following the earthquake] just looking at the damage that had been done in the building compared to what was done outside the building [was strange]…all the rooms were disheveled. We had four-man rooms with brakes locked on all the beds and all the beds were on one side. Seeing buildings half-way collapsed or

> crunched in…two buildings on each side had shifted down. We were on emergency power; however, we had enough light because of all the fires. (Henry)

The vandalism that ensued following the disaster was unbelievable, specifically the way by which society seemed to break down, instead of pulling together following the devastating event. This participant describes a scene of total degradation.

> I remember…we walked into the convention center and the payphones were ripped off the walls and everything was just very vandalized…I remember seeing a wooden palette…full of baby formula…and it was stacked probably three feet tall and some of the canisters…people had used them but they had just torn into them…like some…wild animal had gotten into them. It was just like a total disregard for…just everyday society rules… down the road from the convention center there was a police car that was parked there…all the tires were missing on it…They had taken all the tires off of it. (Cory)

Similarly, the following two participants verbalize their dismay at the desecration of the environment perpetrated by people who were either working in the different shelters or by those they were trying to help.

> There were still piles of feces in the corners and if you went up on the second floor…the carpet was saturated with urine in places and people had just urinated in the corners and pooped wherever they wanted to…and there were a couple of …dead bodies up on the higher levels of the building that hadn't been evacuated out yet. (Lisa)

> We packed the hospital and…moved it downtown to the convention center …which previously had been used as a refugee site and clearly served a purpose as a holding area. However, it was a complete disaster area with regard to litter…exposed food…waste…trash and broken glass…it was just a mess down there because it had taken not only the brunt of the hurricane but it had taken the brunt of the refugee action. (Sharon)

Even as this participant witnessed multiple scenes of chaos within his disaster experience, he also began to see a semblance of organization beginning to emerge and take root.

> You start to see people running, literally running in the streets…literally running in the street…I saw a lady get hit by a car…she got knocked about five feet, hit

> the ground…I turned around in time to see her get up, grab her bags and take off running…I saw maybe 200 people running up a hill, still trying to evacuate the building…you could see people down there but you could see a lot of people helping those people down there…you could see the police there blocking the maybe ten ambulances that were lined up to get in there…there was chaos but it was a chaos that was moving toward…I saw…the organization starting to take root at that point…It wasn't all the way there because there was still a lot of chaos happening. (Dennis)

After the disaster had passed, one participant described the chaos she witnessed as people were attempting to bring some order back into their daily lives.

> The people were in the streams trying to wash their clothes and…using the streams for drinking water and…feces everywhere…they were eating, drinking and pooping on the streams and it was…just overwhelming to watch what was actually going. (Nancy)

Chaos and the media

The impact of the media coverage caused frustrations, anger, and delayed the relief efforts rendered by the military nurses adding to the chaos that ensued. Even though they were working as expertly and quickly as they could, they heard numerous accounts on news broadcast, which caused emotional turmoil.

The negative news reports affected the participants who were working diligently to provide the best of care possible within the moment. They worked long hard hours in an austere environment away from their families providing care for the victims, yet they were portrayed as uncaring. The participants proclaimed that the media personnel was biased, that reports often caused the crowd of survivors to become upset and that the media rarely mentioned the positive aspects of the care provided.

> It was just amazing how the media…just gave such a negative perception of the government and that we were not doing anything…there was such a broad range of emotions and perspectives and memories from it. I didn't care to watch the news or anything because you are there. You are in it [the disaster]…[the media said] the government hadn't acted, President Bush did or didn't do things. That

> was infuriating because…it couldn't have been further from the truth. It was huge misrepresentation of the actual events. We were working as hard and as quickly as we could, but we were portrayed as being slow and uncaring. Due to safety issues, we had to search the victims' bags that contained their belongings looking for weapons and drugs before they could enter the shelters. The media is biased. I really think that it discredited all of the good things that the government was doing. (Bonnie)

> Listening to the news…was very upsetting because of how the media portrayed that we wouldn't go in and help….knowing that when we did send military aircraft in that people were shooting at them. (Christina)

> The media…[this one broadcast star] was there…and about every hour or so he …would start broadcasting…and the crowd would get a little riled up… I understand the sensationalism of media… [but] he never showed too much of our medical tent that we had set up…and what we were doing to help… they just want to focus on the negativity… it kind of made me feel like…that America wants to see…the negativity of something versus what's positive…But with the disaster relief effort it was all about how poorly the government was handling everything…when it's government related the media likes to…portray a lot of negativity and there's a lot of [good]…I could see on the ground what the positive things were that the government was trying to do. (Cory)

Patient privacy became an issue as the media arrived to film the care being provided during one disaster response. The participant became distraught as she tried to explain to the reporter what was happening. The interaction left a negative impression with the health care provider. The participant compared her reactions between the media in the disaster arena with that of the war zone.

> I was trying to give the gentleman a urinal…I was holding a blanket up to guard him…to give the patient privacy…the media…they wanted to film us actually working…I told him twice or three times to get out, to give the patient privacy… that really became upsetting…frustrating. He evidently wasn't going to listen…he would move for a second and just get another angle…but he was still trying to go around. I guess reliving it and talking about it…the frustrations comes out again. When I was deployed [in the war]…[One broadcasting agency] did a report on how the system works, how we take patients from the point of entry all the way back to the military bases and my experiences was totally fine. They were very complimentary of us. They stayed out our way. (Stephanie)

Two participants expressed the negative impact that dignitaries and the media had on their efforts to evacuate patients in and out of the disaster area in timely manner. The participants' days were difficult enough without the added stress. They merely wanted to finish loading the patients so they could be evacuated in a timely manner and the nurses could rest. The dignitaries did not understand that the good intentions of visiting the victims and the disaster are actually hindered the disaster response efforts.

> We were still actively loading patients…a couple of days into our mission these big VIPs were coming through…with his crew…even a former US Vice President was there…he walked through the airport and through our area …and these big VIPs came down while I was actively… loading a plane and his entourage was huge. There were people all around him…his entourage came right through my loading area and my people couldn't get through. I literally told them to get out of the way…"Move it!" and I was yelling because there were so many people…"Move out of the way! I don't care who you are…but I want you to move out of the way because I need to get these patients on the plane. The plane has to get out of here! (Stephanie)

> [When] several big-wigs came in to survey the damage…everything comes to a stop. It comes to a standstill. We have thousands of patients we are trying to air evac out of the airport yet the planes had to come to complete standstill….not only the planes, we were getting helicopters bringing people in…a constant revolving…all these people coming in…[all the] patients leaving came to a standstill…we went hours without being able to do our jobs…huge frustration…we are trying to get our jobs done and there's that whole gaggle of people…yet we were trying to work around …get our work done just because we were so exhausted. (Debbie)

Of a particular note, one participant reported a positive interaction with the media at their disaster site. He was in a different situation however. He was working within a field hospital providing surgical care and support, in contrast to the previous participants who were in airports trying to move patients. He continued his bedside care or spoke to the news reporters between patient care procedures.

> We did have a lot of media attention…[all the major networks] were there, we had several celebrities that came to visit us… former vice president, former

> defense secretary was there, a whole bunch of general officers and politicians, congressmen and US representatives. They came to visit our hospital…we continued operations. We were doing recovery on post-operative patients while we had media there…we just keep working. If we had time, we would talk to them, but if somebody with an emergency needed help then we have to deal with those…really it did not affect our operations…it was pretty exciting. (Cameron)

Making Do

In "Making Do," the participants related the many innovative ways they created to care for the patients, from just doing what they could even if it was merely holding a hand, or listening to a story, or designing a piece of equipment they did not possess. Of particular interest were the different methods developed to transport the patients out of airport for evacuation. The participants even described methods they used to wash their own clothing and other personal issues.

"Using our creative mind…helping out the people"

Upon entering the disaster zone, the military nurses' first thoughts focused on what they could do to aid the victims of the disasters. They spoke of being innovative. Examples were provided about the creative ways to make things work when the routine equipment is not available.

> [In the disaster] a lot of the inventions came because of the military [we are innovative] because of our missions…[we are always]using our creative minds and helping out the other people…the Navy Seabees built some homemade crutches for us to use for our patients…we used our plastic covers [from our supply packing] to make isolation rooms…sealing them off [with duct tape]…for traction devices…we used filled five gallon water jugs and bottles of betadine…just different…creative ways on how to meet the intent…without the exact equipment. (Cameron)

> People who worked in the clinic at the Pentagon there had pulled omni cells out and put them on the back of a golf cart…kicked the doors open to get to the stuff out. (Dennis)

> We had to use a lot of things that we wouldn't normally use and probably we did a lot of things that weren't really safe on a normal basis, but you have to make do with what you have... I was trying to give the gentleman a urinal and I was trying to hold a blanket up at least to guard him…to give him privacy. You just have to kind of make do. (Stephanie)

Two nurses described how they utilized what was at hand in the airports to overcome the problem of transporting patients out to the aircraft. Due to the lack of electricity following the storm, conventional methods were not available.

> We had to figure out a way to get the patients down…to the plane so [we used] the little trucks that you see that have the conveyor belts, that they actually put the baggage on and it takes it up to the plane. We put [one] at the end of the gateway …it wasn't fully safe probably…we would have to walk with a four person carry [one person on each corner] with the litter down…the little conveyor belt…we would load them across the baggage…that have the shelf kinda look to them, [they] were perfectly set for a litter that we would stabilize… four patients on one and then we would have like a chain…We…[linked] those baggage carts up like a train…we would have like three…carts behind the little…I mean the engine if you would call it that with the driver and then we would pull the patients out there and then take them off one at a time and load them onto the plane. (Stephanie)

> [I said] what we are going to do is we are going to take these baggage carts, these little tug carts and we are going to load the litters on there and drive them to the plane and we won't say a word…and they are like, 'Okay.' That's all we've got. (Tabitha)

Several participants stated that one has to do the best one can when in the disaster environment. Truly, it is often "bare bones" basic care provided to patients.

> You know, you would try to help them but it was, in some respects, a very bare bones operation. (Bonnie)

> Because you are overwhelmed with not having all the supplies you need and everything, you just do the best you can with what you have. (Cory)

> You just went into sort of automatic mode of doing what you could do... trying to support this total disruption of folks' lives as best as you could… at the same time you, there's only so much you can do…You can't take them home with you. (Ellen)

> We didn't have near enough supplies even though FEMA came very well equipped with a lot of supplies, I mean we were taking urinals from person to person to person to person…as nurses, we never do, you don't share urinals. (Debbie)

According to one participant, it is back to using basic nursing skills, trusting what is seen, felt, or heard, without the high technology of today. If staffing is short, non-medical personal can be utilized for some task or procedures. Making do is about figuring out what will work in a given situation.

> It pulled out everything you've ever learned just from the basics and just like, "Make it work." It's like you say, doing the best for the greater good…we had to just do everything from scratch…It's not necessarily everything you could do. It's what impact you can make…We only had three ventilators but we had like four people who needed mechanical assistance so I said, "Hey, I need you to bag" and they bagged the whole flight. (Tabitha)

One participant shared how creativity assisted in the recovery and building of homes for the local population following the disaster. However, the creativity did not stop with the reconstruction, innovative methods were established to sterilize equipment. The method may not have been the safest way to proceed, but it was functional.

> I know we built a lot of shelf structures…we would slice our MRE packets open on three sides just as close to the seal as you could because when you opened it up it made a shingle and people would actually use them to shingle their houses because…plastic is so impervious to water. We used a version of jet fuel which was kind of scary…to heat water…the cooks used it…the operating room used it…a lot of our equipment was sterilized with fire and not with autoclave or anything else. You would just burn it which was kind of weird in a way but when you think of it, it is a functional way to sterilize equipment…we found a lot of functional ways to do something. (Robert)

Sometimes the simplest, most mundane piece of equipment may prove to be of assistance as a life-saving measure.

> [On] the first plane load that came out of the airport…there were thirty-two pregnant ladies…One had actually delivered in the stairwell at the airport by flashlight. (Christina)

In times of disaster, extreme measures are employed to save peoples lives, even at the risk of those who is providing the care.

> I don't know what you've got to do but you've got to get there…If you have to drive in the grass, drive through someone's yard. I'm not letting this man die in the back of this ambulance. (Dennis)

In contrast to the many positive aspects of "making do," one participant described a negative reaction to assisting with the disaster. She felt they had been used inappropriately, that perhaps there might have been a better solution to the problem that existed.

> We have an ambulance bus …that can transport litter patients…due to the power outage from tornados and high winds…we were going to transport patients for dialysis… we had a total of eight ambulatory patients…the ambulance bus is configured for 30 ambulatory and four litter patients and can be rigged for up to 12 litter patients, no ambulatory… we weren't the right asset for transporting the patients. You don't need to bring in the big boys if the local boys can get the job done…from a medical disaster response this was over-kill. (Heather)

After the first priority of doing what needed to be done for the patients, the participants turned to sharing some of the creative ways of caring for themselves. This included personal hygiene, doing laundry, improving their living quarters, or a devising a way to section off the men from the women for sleeping.

> We just worked around the clock as best we could …we set up our cots and kind of made little rooms or little sectioned areas with the seats that you sit in when you are waiting for your plane [in the airport]…for the first several days we gave ourselves just like little baby wipe baths…and changed out our shirts as best we could. (Stephanie)

> Just learning to do laundry in a bucket kind of freaked people out. (Robert)

> We had strung together a bunch of poncho liners to make a covered patio…between the tents. (David)

> We slept in this large room. All the women on one side and all the men on the other with a line of the big containers [that resembled] train cars in the middle, so that was the divider between the women and men. (Lisa)

In collaboration with the local community, an area was created to secure the field hospital and a seepage pit to facilitate a healthier environment for the responders.

> My logistics folks found a guy with a bulldozer and some rocks so that they could flatten [the area] out a bit and lay some rock down so that we had some seepage area and a place to secure the hospital. (Sharon)

Emotionality

Within their world of being in the disaster, the participants expressed a wide variety of emotions. It was not surprising to hear the participants verbalize feelings of anger regarding distinctive incidences that occurred.

"If it doesn't touch you, then you've got some problems."

According to one participant, if one does not have a reaction to a disaster event, be it good, bad or indifferent, then perhaps that individual has personal problems that should be addressed.

> If it doesn't touch you, something of that magnitude, then you've probably got some other problems as far as I'm concerned. (Dennis)

During disaster relief, the responders had little time to relax and regroup. Many participants verbalized they worked 12 to 16 hour days with little time for rest or sleep. There was no privacy. Frequently, they slept within a short distance from where their colleagues provided care. The noise of the sick, the processing of evacuees, and the sounds of aircraft, prevented a peaceful respite. Listening to the stories of the victims, witnessing the devastation wrought by the storm, and realizing the total destruction of

individual lives exhausted the participants mentally. The negative reports by the media compounded their mental anguish. Once they returned home, the fatigue and exhaustion set in.

> Just after returning, you are so tired and fatigued and exhausted, mentally and physically…during the deployment was the camaraderie, how everybody just banded together to do what needed to. I think a mix of emotions, from the enjoyment of actually…helping the people…to the frustrations of the media and how they reported. (Bonnie)

Being alone in a new environment produces some anxiety, but to have your world literally begin moving and shaking around you causes more than anxiety. Fear is what stood out to this participant, as she sought answers to her questions and then responded to care for those who were injured.

> The biggest thing that sticks out in my mind is my own fear….because I was raised somewhere where there are no earthquakes…I had no idea what had happened…the floors started shaking and pounding…so I ran out onto the balcony and I thought, 'Oh no, if this building collapses I'm going to be outside'…I ran into the stairwell…banging on the door of some fellow service members…I said, 'What just happened? What just happened?' They said, 'that was an earthquake.' (Christina)

At some point in everyone's life, disastrous events viewed on the television has sparked some sort of emotion. Nevertheless, according to the participants, individuals outside of the environment cannot truly understand the significance of that event if not witnessed first hand. Unless an individual has personally witnessed the devastation of such magnitude, it would be impossible to comprehend the outcome.

> I don't think any of us understands [a disaster] unless we have lived through it. I don't think any of us understands the impact of such a catastrophic disaster on the people who actually have to go back to it or lived through it…you see bits and pieces of it…you are very much affected by it …you think you understand, but I don't think you understand…but until you have actually seen it you have no idea…You don't know how you are going to react…In your head you think you

> know but in your heart you don't know. You don't know until you are down there and you are engaged in it, in their lives, what it's all about. (Ellen)

> You try to tell [people] of the experiences that you have…they don't have any perspective on the things that you have experienced…they are so sheltered in things…You hear about like the typhoons that hit…but to actually be there… seeing it [disaster]…you know what it's really like [you] just can't even imagine. (Nancy)

> You know, you go down there and until you see with your own eyes what these people are dealing with and the devastation that something like this causes…it was just mind-boggling to see how the flood waters had just washed away bridges, entire communities. (David)

The emotional pain that was expressed by these participants' stories was very vivid on their faces ask they talked to me. Tears slid down, they would pause, then continue with their story. These interviews took place several years past their disaster deployments but the pain was still very fresh.

> Even though you weren't a full-time component of that community…you *were* a component of that community…when you are on active duty, you became a part of that community…feeling the pain…the level of discomfort…that's like your family is experiencing stuff. (Ellen)

> [The emotion] it kinda hits you like a rock. (Julie)

> Well, even just riding in the back of the truck over there [in the disaster neighborhoods] it was overwhelming. That just was like somebody had stabbed me. (Cynthia)

Participants described the intensity of the emotions felt while actually being in the disaster situation as it surrounds them, seeing the catastrophe as it unfolds, feeling the fear of the situation, then reflecting back on it after it has past. The following participants share their thoughts.

> But it was just the intensity of the hurricane…hearing what was going on around the country [we were in]…land slides and mudslides and whole villages being washed away, it was pretty overwhelming to be right there in the middle of it… It was pretty overwhelming to be right there in the middle watching all that was

> happening…people, just whole villages, sliding down and being washed away. (Nancy)

> That was the biggest…that was probably one of the scariest things I've ever been through, ever…it was rather overwhelming at first…then my big fear is, they don't know me from anybody…I really felt I was going to get left in the city. The second storm was coming in…the lake is right there on the coast and this little airport is right there…it was right there on the water…planes on the ground… still loading patients…thinking they were going to leave me, because they did not know me…are they going to leave me? (Debbie)

> [The storm clouds were gathering] I remember working on the exit of the plane thinking, 'I don't want to be on this plane right now. This is not a good situation.' (Alex)

In traumatic situations, incidences occur which cause health care providers to look within themselves and realize that they are unable to handle the problem; that they are outside their scope of practice and ability to render care. At that point, the health care provider needs to act on that recognition and have the courage to ask for assistance.

> It is humbling…to realize that…I'm a big bad guy in the emergency department, but I knew I was out of my scope and taking her in the ambulance was to be too much of a challenge for me and I knew I probably couldn't handle it. (Dennis)

Although one participant was proud to go and serve the community, he was embarrassed because of the lack of communication, disorganization, and the overall efforts demonstrated by his military branch.

> I overheard one person say, it was the only time in their military career that they were actually embarrassed to be in the military…and that's kinda how I felt too. (Alex)

One participant was astounded to witness guards with weapons in a disaster environment within the borders of the United States. If he had been in a country outside of the borders of the continental United States in an overseas country, he would not have been as surprised.

> There were guards with shotguns and bandoliers and it was just a truly surreal experience…had we been in a foreign country it probably would not have impacted me nearly as much but the fact that it was in the United States city, I think really just kind of blew me away. (Doug)

The strong emotional reaction felt by one participant describes some of the feelings of not being able to do anything but listen, as she was not there at the occurrence of the disaster. It was all she could do to share their loss and suffering.

> I mean you try to compartmentalize your feelings but you can only do that so much…and by listening and listening and listening…and that's all I could do because I wasn't there to share the experience. (Ellen)

Another participant voiced the emotional blemish she experienced. After having been in more than one disaster, she mentioned she had emotional scars, however, the experience also brought her reassurance. She had survived the disaster, but would always have the memories.

> I think it does, [the disaster event] it scars you, emotionally…having been through one and then another… I think we felt a little more, I felt a little more assured because I had experienced it [the second time]…that which I hadn't ever experienced before. (Christina)

Two other participants strongly voiced how the results of their disaster efforts negatively affected them. They were astounded at the treatment they received when they were trying to be helpful.

> [In the disaster response] I think I was more pissed than anything…to fly into one of your own cities and have people on the ground shooting at you and all you are trying to do is to take care of people, I think it pissed me off. (Doug)

> We got there and unloaded, and we had to stand back and let the international organizations and non-governmental organizations be the ones to sit up there and have their pictures taken so there was a little bit of professional frustration…[It made me feel like a] second class citizen…frustrated…they will take from us but they didn't want to be seen with us. Anger! (David)

As he rendered aid to the victims of the Pentagon attack, this participant described

the smell in the air and the odors that lingered on his uniform days later. The smells on his clothing actually helped him to cope with the memories of the disaster. He was angry at who or what group had the audacity to attack the United States and cause all the pain and destruction he witnessed.

> The jet fuel that hit the building had burned…everything has a smell when it burns…if you worked in enough emergency rooms you know how human flesh smells when it burns…the smell of the human flesh, the jet fuel…you could smell the jet fuel in the air…where it had…gone over everything. I remember that smell…I got home, I didn't even wash that uniform for a couple of days because I needed to see that memory. I put it in a bag…I'd smell it every once in a while and think about it because **I was angry**…so I would smell it and stick it back away and go back to work the next day. (Dennis)

Several participants described feelings of frustration. One participant expressed not being to do enough, while another related it was hard to have the very food the soldier is expected to eat rejected by the victims of the disaster.

> They were grateful for everything we brought in but I think it also frustrated them as well. It's the same frustration we felt because we knew there was more we could do but not in the time-frame we had. (Robert)

> They were hungry and thirsty…we had MRE's …but some people won't eat that that... I find it very fascinating that this is what I am required to eat, but when I offer it to you…the you turn it away…that was kind of hard. (Stephanie)

While rendering care to a casualty of the disaster, the patient took a turn for the worse. The provider was trying to project a strong appearance to the individual. He is a military soldier, he must always appear strong and in control even in the face of catastrophes.

> So I'm, at that point I'm like teared up and I think the guy sees it and I'm trying to calm myself down because I realize what's happening. I'm trying to calm myself down because I don't want him to see me upset, but I'm…I'm physically frustrated and upset. (Dennis)

> You can have some fond memories, but sad memories all at the same time and some frustrating memories. (Stephanie)

Three different events occurred which were described as sad by the participants. For one participant, sadness referred to the expectant section in the area where patients were dying. The second participant used the word sad to express her empathy for the overweight patients lying on the narrow conveyor belts utilized in airports. Sad was used by the third participant to refer to a moral concern he had regarding humanitarian responses.

> [In the disaster area] they had a section that they called expectant, where people…it was nothing else they could really do…they just kind of had them there just to die…just kept them comfortable…that was the saddest thing I've ever seen in my life. I never want to experience that again ever…all those people. (Tabitha)

> I really felt sad because some of the overweight patients were…lying there on the conveyor belt…no blankets or anything. (Stephanie)

> Humanitarian [responses] are always about your own guys, which is a little sad. (James)

When considering the sense of urgency felt during a traumatic event, time was an emotion that touched one participant. In an emergency, trying to provide expedient care, one can never seem to move fast enough, because of the stress encountered.

> You have the race against time…of getting the person or people out…time seems to stand still when you are in the midst of a disaster…that's something I know, is [that] definitely, time does seem to move so slow when you want things to move fast in the midst of a disaster. (Christiana)

Even though many participants expressed sad or negative reactions to the disaster response, several participants also verbalized many positive thoughts regarding the outcome of their efforts.

Two participants articulated the disaster experience as probably one of the best experiences of their lives, that it was meaningful.

> This is probably the best work I've done because it seemed like the most meaningful at the time, had the biggest impact…I kind of feel like that's the best work I've done in my career. (James)

> That experience was probably one of the best experiences in my life. (Cameron)

One participant described how seeing the immediate results in helping people allowed her to persevere when she was so exhausted. She could witness a positive outcome as she worked.

> You just keep going I think because you…you knew that you were doing something good. You knew you were helping and you could see the immediate relief in that. (Bonnie)

Two participants expressed how the experience of relief efforts made them feel, about how everyone came together during the time of the response and the bond that was maintained after the deployment was completed..

> You kind of got a tingly feeling that…Yeah, this is happening in our country but look how we are all coming together to pull this off. (Doug)

> I shall always feel the kinship with…that community. (Cynthia)

Being proud was another positive emotion verbalized by two participants. Both participants were appreciative of the opportunity as members of the military to be able to extend their expertise into the civilian community who need their assistance.

> I felt very proud to be able to rapidly bring together a very skilled group of people and equipment and we knew that we knew our jobs and we could help. I knew that we could help. (Sharon)

> It was a good thing we were doing…I was proud and happy we were out there the need was there…but we were not utilized as we thought we were going to be…[however] we showed up with our toys and really didn't get to play…[but] it was a good experience. (Heather)

Coping during disasters

As a subset of emotionality, references were made to coping mechanisms and dealing with what traumatic events. Coping was sustained through the associations with their team members. The disaster brought them together cementing a bond that many participants verbalized still exists even today, years after the disaster deployment. They looked out for one another ensuring all were managing the hardships they experienced and the numerous catastrophic episodes they witnessed.

Three participants described that all they had was one another to depend on during stressful times. Military members are accustomed to leaning on one another as they are separated so many times from their family and significant others. They become a surrogate family during trying times.

> The only thing you've got is each other. Whatever books you had you shared…you created a library and shared…you learned to rely on each other. Not just clinically but socially. You learned how to communicate without…having to talk. You learned to read each other to figure out who was tired; who needed a break…a lot of us still keep in touch. (Robert)

> You build a team…you have a closer knit group of people…you gain a better respect for one another…you have to depend on each other…you are your own support group…we had a little reunion…we all met up…even ten years later…that's what we talked about [the disaster]…what we did…but we just had that bond. (Nancy)

> On a deployment…you develop camaraderie, a kinship…the camaraderie and the kinship is integral and key to preventing…any kind of issues of a behavioral health nature. Camaraderie, kinship, togetherness, feeling united by a common goal…can help you survive that event emotionally…It's a bonding…you bond together…that bonding is protective mechanism. If someone is having a bad day…we can see it in a heartbeat….that open banter…is prophylactic in nature…so we all became amateur combat stress control people in a manner of speaking…based on the nature of our team…we were all we had…it was…a survival mechanism. (David)

The military has a saying: There is no "I" in team. The words of the following participant supports that philosophy.

> I really felt a camaraderie. We were like a big family…you cannot do what you do alone…you learn the team effort…helping the people…helping your own people…you have to have the team…everyone has a specialty…everybody pitches in and has a piece of the pie. You can't make the pie complete without each other…the team helping you and encouraging you keeps you going. (Stephanie)

To remain functional, the nurses had to look out for themselves and their team members. Sharing the experience with one another helped them to deal with the experience.

> [There was] tremendous benefit [from] verbalizing your feelings and collaborating with those that have gone through the disaster with…because no one else has lived through what you all have lived through together…validating each others feelings…surrounding ourselves with each other…we saw so much trauma…that you have to take care of yourself…that is how we dealt with it…came together…locked arms…we would spend time just talking about out feelings and our memories. (Christiana)

One participant shared her experience with her family and friends in her neighborhood.

> I dealt with it by coming back home and talking about it…I talked to my husband…talked to my neighbors…I would share…tell them about what I saw…talked about what you saw because…you just want to repeat it back…and a common response…"Well, I've given money toward disaster relief…I'm sharing your pain by giving some money"…what can you say…you just talk about it…and just shake your head. (Ellen)

Existential Growth

As the participants reexamined their thoughts regarding their experience and the outcomes of the disaster, they realized that they had grown as a result of their efforts; they had reached a higher level of transcendence. As indicated by their words they gained

insight into the bigger picture of life; they stepped out of themselves and viewed the events and the outcomes of the disaster through a new lens of being-in-the world.

"Until you see the big picture, you don't appreciate it."

The disasters to which they responded caused several of the participants to reassess their previous thoughts on life. They came away with a new appreciation for themselves and the lives of others.

> It kind of reshaped my thinking about catastrophic events…until you see the big picture, you don't appreciate it…it is a very enlightening experience…it is a very gut-wrenching experience in appreciation…appreciation of how people's lives can just be simply, totally…disrupted…sometimes we think we have experienced everything, but by the grace of God go I. (Ellen)

> Seeing something like that [disaster] you gain a different attitude…I think the experience just makes you a better person. (Nancy)

> I think everybody came back from the experience grateful for what we do have. (Robert).

> You can't appreciate what you had until you see what people don't have. (David)

Realizing that they were just a very small entity in a much larger picture touched these responders. It caused them to rethink their position in the greater scheme of life.

> My God, this thing is huge and bigger than my little part that I am trying to attend to and help out with. (Ellen)

> Dude, you are a small piece in how big the stuff is. (Dennis)

> Me and my little ol' mission…it built my self confidence…that was a personal gain for me. (Heather)

"Feeling blessed" described the growth experienced by this participant. However, she also thought about the people of the disaster, wondering about the changes in their lives.

> But to lose everything, is a tough pill to swallow… [I] feel fortunate, I feel blessed. I feel, "How can there be justice in situations like this?"…I think, 'Where they are [the victims], in life or in heaven?' or 'How are they thinking, how are they doing… Has their life gotten worse or has it gotten better?'… One thing is to me that I value life. (Jackie)

Still another participant expressed a greater awareness of the world. She grew in her understanding of people and verbalized that she does not want to loose what was gained during the timeframe of the disaster response;.

> I came away with a lot more…awareness of what goes on out there. As I think about this experience, it's been almost three years ago…whatever I experienced three years ago [I hope] continues to stay with me…to improve how I…look at other people and not to be judgmental and to take people for who they are and understand the situation where they are coming from. (Julia)

From her experience, Christina, achieved a greater appreciation for her role as a nurse: doing something for the greater good of humanity. She new she had made a difference and was proud of what she accomplished.

> [I gained] more appreciation for what [we] are doing…basically as a human being to know that you are doing something for the greater good. (Christina)

Dennis realized that life experiences afford opportunities at some of the gravest of times.

> So it was like the gravity of the situation of having to be Johnny-on-the-spot, right time, right place, and being out into a position because what you experienced…I'd say it's life…life experience…[disaster is] an experience of life. (Dennis)

For this participant, the existential growth was a gut-check on reality. She came away from her disaster experience with the realization that it is an unusual world in which humanity resides and that one person cannot always control everything that occurs.

> It was a gut-check on reality…not everybody has your beliefs…not everybody thinks the way you do…you can get wrapped up in your own world…but you've got to realize that this really is a strange world that we live in…you can only

> control what you can control…you've got to realize not everybody looks at things the same way you do. (Tabitha)

Having dealt with disaster victims, these participants came to an understanding of the effect the disaster had on those who had lost so much. Participants' words described how their lives were changed by taking on some of the emotional burden of the victims.

> That's what was disturbed…the most disturbing aspect I think came through in dealing …with people I encountered is their sense of well-being was gone…My sense of my life was gone. (Ellen)

> To see the disbelief on people…just how their whole lives changed…it took a toll a little bit [on us]…to see how lives were disrupted or torn apart…it was just a huge loss of their lifestyle and everything that mattered to them. (Cory)

In reflecting on their disaster experience, these particular participants reported a change that left them questioning how to relate with those in the world who had not experienced or witnessed the things they did.

> Who do you find a common purpose with? (Robert)

> Poof, we are back…transported back…expected to go on with our life…to go on with life [when]…no one else has experienced that you have experienced…how do we all really deal [with it]. (Christina).

During their individual experiences, the participants learned valuable lessons that would benefit them in the future.

> If I'm ever the guy who has to pull the trigger, or execute something like this, [disaster relief] I kinda learned to manage human resources up front, man-power resources. From the very beginning start managing it, and start managing your other resources. No matter how miniscule or how much surplus it seems like you have. (Dennis)

> Reliving the earthquake, having the aftershocks but then also not knowing [what it was]…was that an earthquake?...[and] learning what I was suppose to do the next time. (Christina)

Summary

The military nurses' experiences of disaster response were concentrated in the phenomenological world of "others." There were two contextual grounds that emerged in this study: organized military culture and the disaster experience. The military nurse participants' lifestyles are ingrained in the military culture. The contextual ground of the military culture was a focal point against which they attempted to orient themselves within the disaster experiences. However, they quickly realized that this was not always possible because war/combat and disaster response were two very different experiences. Drawing on previous combat training and knowledge gained from wartime deployments, the participants described the many differences within the disaster experiences. The themes that emerged from the narratives of the disaster experiences were the "Nature of War" versus "Nature of Disaster;" "Known" versus "Unknown;" "Structure" versus "Chaos;" "Prepared" versus "Making Do;" "Being Strong" versus "Emotionality;" and "Existential Growth." A thematic diagram of the structure provided a visual of depiction of the participants departing the military culture and integrating into the disaster experience as they quickly and diligently rendered care to the victims in an arduous environment, while simultaneously caring for one another. Discussion of the findings, as well as implications for nursing and future research is presented in Chapter Five.

CHAPTER 5

DISCUSSION

The purpose of this study was to gain an understanding of the essence of military nurses' experiences in responding to disasters. The question developed to acquire that understanding was "What is the experience of the military nurse during and/or following a disaster response?" In order to answer the research question, 23 military nurses from the Army, Air Force, Navy, and U.S. Public Health Services were interviewed following the phenomenological process of Thomas and Pollio (2002) based on the existential phenomenology of Merleau-Ponty (1945/1962).

Regardless of the disaster event, military branch, or individual rank of participants no differences were found in their responses. Through the use of hermeneutic analyses, five polar themes emerged against the two contextual grounds of organized military culture and disaster experience. The identified themes were "Nature of War" versus "Nature of Disaster;" "Known" versus "Unknown;" "Prepared" versus "Chaos," "Structured" versus "Making Do;" and "Being Strong" versus "Emotionality." The final theme of "Existential Growth" emerged as participants reflected back on their experiences and told how the deployments affected their lives. Figure 4.1 (see page 94) illustrated the two contextual grounds and themes.

Theory Applicable To Disaster Response

As previously discussed in Chapter 2, two major theories were noted as being particularly applicable to disaster response: Maslow's Hierarchy of Needs (1943) and

Nightingale's Theory of Nursing (1860/1969). In addition, Whall et al. (1999) added more contemporary perspectives on Nightingale.

Maslow's Hierarchy of Needs

According to Maslow (1943), there are five levels of basic needs. These are respectively: psychological, safety, love/belonging, esteem, and self-actualization. Findings from this present research into military nurses' experiences in disaster response are consistent with the essential needs as described by Maslow. The participants described how they collaborated with other disaster relief organizations within the disaster community to obtain food and water. Previous work in the literature also supports these findings. Zamarripa (2003) found that collaboration was needed between the military and civilians during disasters to secure sanitation, food, and housing.

Findings in the current study of military nurses' experiences in disasters also support issues related to safety and security, the second level of needs identified by Malsow. Participants Debbie and Bonnie clearly spoke of numerous weapons that were confiscated from disaster victims and the vandalism that was apparent in the affected communities. Several other participants described utilizing the buddy system to increase their safety within the area of devastation. Information regarding safety and security during disasters is annotated in the literature. In their 2007 study, Rogers and Lawhorn noted that surveillance and adequate security are essential requirements during disaster responses.

Love, affection, and belonging are addressed in Maslow's third level. Numerous examples in the findings support the need for belonging. For example, military nurses in this study talked about how leaning on one another helped them get through difficult

days. David mentioned that banding together and talking to his colleagues in the tent at night decreased the stress and anxiety he was experiencing. Another nurse told how she and several disaster response nurses "just linked arms" as a sense of togetherness against the difficult times. Robert stated, "The only thing you've got is each other." He described how the team was so close, they communicate without talking. In all of these stories, the essential need for connectedness was validated many times.

Esteem is the focus in the fourth level of Maslow's hierarchy. Although the participants in this research described the disaster experience as being good, that they would serve again if needed, they also described the disaster relief efforts as frustrating, and wishing they could have done more. On numerous occasions, the participants found that their self-esteem needs were not supported by their work.

The final level of need within the theory refers to self-actualization, a state of being which the individual feels that he or she is fulfilling life's purpose The participants were working in a field they selected; the field of nursing. The participants were doing what they felt was important in their lives; rendering care to individuals who were sick or injured. However, during disaster responses, participants were constrained in their ability to provide the quality of care they were accustom to in the military health facilities. They had to provide the best of care they could with the supplies and equipment that was available. Therefore, many of the nurses felt their care was lacking. The major theme of Existential Growth directly addresses the achievement of self-actualization. Despite their professional frustrations participants nonetheless felt that they gained valuable appreciation for their role in the grand scheme of life. This major theme of Existential Growth is further discussed under Yalom's views of the world.

Nightingale's Theory of Nursing

The second theory identified as applicable to disaster response is Nightingale's Theory of Nursing (1860/1969). While Whall et al. (1999) describe her theory as limited, "simplistic and outdated" (p. 319), this present research indicates that Nightingale's theory actually applies well to preparation and training of military nurses for disaster response. Her concepts of nursing originated out of a chaotic arena, the Crimean War. Her tenets of nursing focused on establishing a safe environment in which to provide nursing care. She also alluded to ingenuity and perseverance as being qualities of a good nurse. Finally, Nightingale opined that nurses must possess the "habit of observation."

Nightingale asserted that the concepts of health, water, efficient drainage, cleanliness, light, and noise were imperative in nursing when providing care. Even though she does not label these concepts as environmental concerns, they most assuredly are elements that surround individuals in the world where they reside. The findings of the study support this notion. Debbie and Sharon mentioned how the nurses worked within the same area where they slept; therefore, the nurses had no reprieve from the noise and chaos that surrounded them. Lisa and Henry related how the smells of rotting meat, urine, and feces were all around them where they worked and lived. Lisa even mentioned there were bodies that had not been removed several weeks into the response efforts. Cameron spoke of the total devastation of the area; that society as a whole had broken down. He described the trash in the area, phones ripped off the walls, and other health hazards. All of the previously mentioned examples support the findings of Jordan-Welch's (2007) study.

Nurses in this research told stories of giving care that reflected the core elements of Nightingale's theory. Throughout the narratives, participants described the care rendered during disaster relief as a "bare bones operation," and having to start at the beginning, using basic nursing skills to provide care because of the lack of electricity, modern equipment normally found in medical facilities, and lack of supplies. Jordan-Welch, in her 2007 study of civilian nurses providing care during disasters, also identified Nightingale's theory as very relevant to disaster responses. Her civilian nurses described providing care without the benefits of technology, manually bagging patients who needed respiratory assistance, and providing care via flashlight. Like her nurses, military participants in this research described providing care that was primitive, returning to skills mastered early in their educational experience, out of necessity reliant only on what they saw, heard, smelled, and felt. This reliance on the most basic skills and interventions is what makes Nightingale's theory so applicable to disaster nursing.

History of Nurses Responding to Disasters

Within the literature, there are many examples of the importance of providing nursing care during disasters. As mentioned by Dara, Ashton, Farmer, and Carlton in their 2005 study, responding to a disaster to provide aid "is an ancient human endeavor" (p. S2).

Rayner (1958) indicated that nurses' primary roles during traumatic times constitute relief and remedy for the involved populations. Findings of this research in to military nurses' experiences support this statement. Military nurse participants described how they integrated with their civilian colleagues to bring assistance and a sense of relief

during chaotic times. Sharon spoke of how [her] nurses worked the civilian nurses sharing their nursing expertise and military assets to facilitate the disaster relief efforts.

In her study, Laube (1973) described how stress, physical demands, safety, and supplies were issues identified in disaster experiences. She contended that watching the suffering of the victims and enduring the chaos was difficult for the nurses. These study outcomes are supported by the findings of military nurses' experiences in disaster response. Doug described the human devastation he witnessed, how 'just every three minutes, someone died." Nancy remarked how she worked around the clock for several days trying to sand bag and protect their military field site prior to and following the hurricane. Another nurse told how there were so many people just being "herded through the shelters" for evacuation, there was very little space between the individuals.

Nursing's Role in Disaster Preparedness

The seminal work conducted by Neal (1963), is regarded as the first major effort to assess disaster preparedness in nursing (Komnenich & Feller, 1991). Neal, a civilian nurse educator, in conjunction with the National League of Nursing (NLN) and the Federal Civil Defense Agency (which later became the Department of Defense) completed a pilot study, which included four schools of nursing wishing to add disaster-nursing courses to their program of study. Based on the outcomes of her study, Neal recommended: (1) conduct interdisciplinary research to identify skills needed to perform care in a disaster, (2) define the essential body of knowledge needed during a disaster, and (3) utilizing military resources, develop a disaster training facility. Carroll (1996) indicated a course should be designed by the AMEDD Center and School (AMEDD

C&S) to address disaster response. He stressed the importance of adequate preparation, suggesting disaster operations be added to specific military courses and that individuals attend emergency preparedness courses regarding the delivery of care in catastrophic events.

Findings from this study of military nurses' experiences in disaster response support the previous literature. Participants indicated they had not received specific disaster training prior to deployment. Even though they found their military combat training applicable in some instances, disaster relief courses were needed to prepare appropriately for the future.

Psychological Issues Related to Disaster Response

According to DeWolfe (2000), maintaining optimal mental health among responders, as well as survivors of disasters is important. Robbins (1999) supports this thought, stressing the importance of incident stress debriefings for personnel following traumatic events. Robbins indicated that responders need to vent impressions, reactions, and feelings through group sharing. Adams (2007) emphasizes the vulnerability of both volunteer and paid responders following a disaster event. She notes that the respondent should be aware of his or her own needs, particularly emotional distress. Similarly, Whall et al. (1999) stress the importance of psychological factors in well-being.

Findings of this study support the previous works, but take those conclusions one-step further. The participants of this study felt that individuals who had not been involved in their disaster experiences could not possibly understand what they had endured. Therefore, as participants of disaster experiences they became their own combat stress

teams, discussing their anxieties and things they had witnessed throughout the disaster deployment, continuing even into the present day as some participants remain in contact with each other. Military nurses who respond to disasters are at risk for experiencing emotional distress and could potentially demonstrate signs and symptoms of compassion fatigue and/or PTSD. Many of the participants specifically mentioned the lack of adequate debriefing and ongoing emotional support available to them upon their return to regular duties and typical roles.

Crisis Communication and Disaster Response

During any disastrous event, effective crisis communication becomes a key component to relay essential information to the individuals within the disaster area. Unfortunately, communication disruptions and failures are an inescapable component of crisis, most often attributable to the chaos that ensues following the precipitating event (Sonnier, 2009). Wang, Sava, Sample, and Jordan (2005), examined the medical response to the attack on the Pentagon noting the lack of emergency communication capability between the numerous treatment facilities. Their recommendations for improvement included developing more efficient and reliable methods of information transfer during calamity. Likewise, emergency responders, along with county officials, conducted an Arlington County after-action review (2001) of their response to the terrorist attack on the Pentagon. Communication between the disaster area and local emergency responders was inadequate. Even though the crisis was a daunting experience for all, valuable information was generated, which established a need for a more effective disaster plan.

Hale (1998) in his AAR, indicated communication was needed before and during disaster responses to facilitate relief efforts.

The findings of this present study agree with that of the previous literature. The participants expressed how a lack of communication led to disorganization and hindered disaster response efforts. Tabitha described how she was deployed into the disaster arena without her command having any information about her disaster role or who she needed to contact upon arrival. Another nurse mentioned his team had no idea what to expect with regards to the disaster as no communication was coming out of the city prior to their deployment.

Other communication concerns highlighted by the findings of this research relate to the news media. The participants described how media reporting caused mental anguish among the disaster responders. They emphasized how the negative reports discredited the positive things that were being done. Bonnie mentioned they (the nurses) were working as hard and quickly as they could, but were reported as being slow and uncaring. One nurse mentioned how a media broadcaster would cause the crowd to become unruly with his news broadcast. A third nurse spoke of how she refrained from watching the news, as she was engulfed in the disaster, and hearing the biased news reports increased her stress and anxiety.

Other examples of communication issues include difficulties with the media and patient care. Stephanie told how media personnel refused to respect patient privacy during disaster responses. As she assisted an elderly gentleman with a urinal, a reporter was trying to take photos of her patient care. She tried to provide a barrier for privacy, but the individual persisted by trying to take pictures from a different angle.

Two nurses spoke of the difficulties with visiting dignitaries and the news media. As these high-ranking officials entered the disaster sites with their entourage, reporters would stop them for interviews. Often this took place in the middle of evacuation areas. Even though one nurse tried to get the groups to move, they remained in place. This lack of cooperation slowed the loading of the patients for evacuation. Another nurse described how everything came to a standstill due to the dignitaries' presence. She mentioned they (the nurse responders) lost hours of valuable time in loading and evacuating patients, which increased the responders' frustrations. As supported by the narratives of this current study, communication concerns were multi-faceted. There were large-scale problems that affected public opinion, and there were small-scale issues that impeded the relief efforts of the military nurse participants.

Existential Phenomenology

According to Thomas and Pollio (2002) existential phenomenology creates a meticulous and distinct depiction of the human experience, which includes the elements of others, time, space, body. Merleau-Ponty (1945/1962) stated that "phenomenology is the study of essence….a philosophy for which the world is always 'already there' before reflection begins…it also offers an account of space, time and the world as we 'live them" (p. v11). The findings of the current study support the four elements of others, time, space, and body.

The world of "others" was the strongest of the four elements documented in the study findings. The participants described how they formed relationships with the community for water, food, and sanitation. The military nurse participants described

working with and listening to the disaster victims as they provided care and prepared them for evacuation. Nearly all the participants expressed how the relationships between the team members evolved into a secondary family during the relief efforts.

The element of time was expressed in the narratives by the words of "quickly," "racing," "days," and "hours." One participant described how they were told to "hit the ground running." Another participant spoke of loading planes around the clock. A third participant mentioned how "time slowed down" during a disaster. This statement was also supported by previous works in the literature. Dickerson et al. (2002) examined the experiences of nurses who worked at Ground Zero following the World Trade Center attack. One participant in that study remarked how "time seemed to stop; the day no longer had reference points" (p. 29).

Concerning the element of body, the participants mentioned that they were both mentally and physically fatigued; exhausted. Julie mentioned the emotional pain she felt that "hits you like a rock." Cynthia described her emotional pain of witnessing the devastation within the disaster community as "overwhelming…like somebody had stabbed me." Christina verbalized that she was emotionally scarred by the disaster experience.

The element of space was supported the least by findings. The participants described having to find space to build their living quarters and adjusting the loading of the aircraft to accommodate additional people. Another reference to space referred to the magnitude of patients in the different shelters. The large numbers were described as a "sea of people, just lying everywhere," and "there were so many people, you could not see between them."

Yalom's Existential World Views

Another existential philosopher whose works have bearing on the experiences of military nurses in disaster response is that of Irvin Yalom (1980). He stresses that life is a struggle, which arises from an individual's encounters with particular issues that are unavoidable in a human being's survival within the world. Yalom defines existentialism as focused on four ultimate concerns of life: death, freedom, existential isolation, and meaninglessness.

Findings of this study reflect the four ultimate concerns of life, but are the strongest in relation to the theme of "existential growth." Yalom states that to exist means to stand out. He also indicates that "growth is a process of separation, of becoming a separate being" (p. 361). In this research, as the participants reflected back on their experiences, they expressed how the relief efforts had touched their lives. They mentioned they would gladly respond again. The military participants in this study came away from their disaster response with a greater appreciation for their position in the world, as individuals; as well as professional nurses. They described how grateful they were for what they had in life. They verbalized how small their individual piece in the disaster response was compared to the disaster itself. However, several participants realized how important the collective response efforts were to the thousands of victims they aided. Some observed that in the gravest of times, life experiences offer opportunities that may never occur again. They gained valuable lessons that will benefit them in future endeavors. In this study, many of the participants have "become;" they have transcended; they have achieved existential growth.

Implications for Nursing

Implications for education, practice, training, and policy are strongly suggested by the findings of this study. These recommendations are applicable to both the civilian and military nurses who respond to disasters, as well as to all levels of nursing education.

Education

Neal (1963) indicated necessity for disaster education to be added to nursing curriculum. The need has been recognized in the literature, but very few colleges and universities have incorporated disaster awareness and disaster response courses into the curriculum. Findings of this study continue to support the addition of disaster response courses to nursing curricula as identified by Neal. Several participants mentioned problems with coordination in disasters. Although they did not request specific disaster courses, the FEMA courses regarding Incident Command, and working with non-governmental agencies would be beneficial. One of the nurses mentioned the problems with hazardous materials in the disaster area. Information that relates to these types of health concerns would be applicable for future education consideration.

Adding the disaster courses to undergraduate nursing curricula would benefit both civilian and military nurses. Inclusive in these courses should be information regarding crisis communication and dealing with the media as this was a concern noted in the study findings. As the military branches utilize civilian trained nurses in their corps, disaster preparedness courses would enhance military response efforts. Likewise, civilian nurses within their community could potentially be involved in disasters. Often times, as noted in the study, the two entities must collaborate to facilitate an effective response. If nurses

receive disaster education in their basic nursing courses, relief efforts should feasibly be more fluid in the future.

Higher education levels need to develop a full curriculum that culminates in a disaster response concentration. This concentration would particularly be beneficial to public health nurses and the military. To my knowledge, the Homeland Security course of study offered at the University of Tennessee, Knoxville is the only one of its kind in existence. Unfortunately, the course is subject to grant funding and not a permanent course sustained by the university. Military and civilian nurses alike would benefit from a permanent course whose viability was assured at the university of level.

Practice

The needs of nursing practice are similar to the education needs mentioned in the previous section. However, nursing practice refers to the application of skills learned in academia. As noted in the study, military nurses were concerned about being able to apply their skills in the real world. According to Dossey et al. (2005), Nightingale warned about the danger of merely book learning. She indicated that book learning may be forgotten, but by applying knowledge in the field, the experience lingers on. Therefore, communities need to practice disaster scenarios often, not just within their own facilities, but also through integration of numerous disaster assets.

Information garnered in the literature suggested that both military and civilian health care providers need to collaborate, share experiences, and practice together. Those thoughts were supported by the findings of this study. One of the participants mentioned how making contacts in the civilian community supplemented their supplies and equipment; however, military acronyms caused confusion in communication. Another

nurse mentioned how a physician expended too many supplies and needless time on one individual whom the military would have placed in an expectant category. These two examples demonstrate the importance of combined disaster drills. In catastrophic events, military and civilian nurses must join forces to provide care to the community. Practicing together will engender an understanding of the language, disaster skills, and form cohesive teams to function seamlessly when the need arises.

Training

Currently, the military does not offer specific courses related to disaster response. Their main training focus remains on combat skills. Although this study did not specifically research combat experiences, findings in the study indicated that a few skills designated as combat training were applicable to disaster response such as triage, erecting the field hospital, and providing public health assistance. However, the study supports the compelling need for greatly expanded and disaster specific response training to be incorporated into military basic and advance officer courses. Courses such as Basic Disaster Life Support™ and Advanced Disaster Life Support™ would complement the TNCC course currently offered. Situational analysis and vulnerability assessment courses would be beneficial for both disaster and combat deployments.

Similarly disaster education is not typically included as part of basic nursing preparation. Instead, if it is offered at all, it consists of a few brief lectures without any disaster-specific clinical component. It is the rank and file—nurses both military and civilian—who comprise the majority of disaster team nursing members. Without adequate disaster education and skills training, these professionals will be hindered in their capacity to render care and meet essential survival needs during traumatic events.

Possession of this specialized education should be an absolute requirement for practical and registered nurse licensure.

Policy

In conversation with the Chief Nurse of the AMEDD C&S, no specific policies and protocols have been developed for military nurses who are responding to disaster events. The current research highlighted the fact that the lack of these guidelines led to disorganization, chaos, and eventually frustrations. There are many joint regulations that govern the responsibilities of the military branches to respond to disasters, but not how to follow through upon arrival. In discussion with the military nurse participants, very few were even aware of the joint publications previously mentioned. As noted by the findings of the study, combat protocols are not always applicable to a disaster event. The usefulness of protocols is dependent upon the nature of the disaster and the job being performed. Carroll (1996) indicated the need for disaster specific protocols and procedures that could be modified to meet mission needs. This need was identified following his response to Hurricane Andrew. The need is still viable today.

Another area within policy that should be addressed is that of psychological support. Great emphasis has been placed on meeting psychological concerns of combat soldiers, but very little support has been provided to the disaster responder. As indicated by the literature, health care providers are emotionally vulnerable following a disaster event. The findings of this study indicate that nurses who respond to disasters suffer from some of the same emotional concerns as combat soldiers and sometimes the psychologically trauma is even greater than that of combat. This is an area of grave concern for future response efforts. Sharon shared how the disaster environment

presented greater hardships than that of the combat. Christina mentioned that "poof, you are back, expected to go on with life, [however] no one has experienced what you have experienced." Robert asked, "Who do you find a common purpose with?"

Abundant in the narratives of this current study were references to methods used to cope during the disaster events. Several participants described how the members of their teams "were all they had," to sustain them through difficulties they faced, as they were not mentally prepared to deal with the "total devastation" they witnessed.

How the Military Can Better Prepare and Support Its Own

Throughout this section, I have presented recommendations for enhancing the effectiveness of future disaster readiness and response. The findings of this research suggest steps and strategies that military branches can take to better prepare their members for disaster response, and support those members during and after their return from disaster deployment. Each recommendation is equally important; however, the psychological issues are placed at the beginning. If the military nurse participants are not mentally prepared for the disaster response, nor have the skills to care for themselves, they cannot effectively provide aid to the victims of the disaster.

Psychological Concerns

As noted by the participants, emotional conflict was generated by competing demands. Their core need for emotional stability was threatened by discrepancies what they prepared by their training to encounter and what they confronted. They were psychosocially ready to go to war, but not for what they encountered in disaster situations. For example, nurses expected to be shot at during conflict, but they were not

mentally prepared to be fired upon by non-combatants while providing relief during rescue missions in disaster events. Military nurses are expected to demonstrate a persona of inner strength during stressful events. In preparation for combat deployment, all soldiers are given a medical threat brief. Therefore, those who are deploying to combat have an idea of what they will encounter. In contrast, the lack of preparation for disaster, the absence pre-deployment information, and onsite disorganization diminished military nurses' ability to "be strong" because they were caught unaware.

Like combat, disaster stress teams should deploy and return with disaster responders. Furthermore, military nurses who deploy to crises must not be reintegrated into normal duty immediately. Similar to the way soldiers returning from combat are management desensitization process ought to be instituted for all military nurses returning from disasters. The military currently has a mental health assessment that is given to soldiers at the end of a combat rotation and six months thereafter. The same protocol should be followed regarding those who have responded to disasters. Classes should be developed that offer information regarding compassion fatigue, coping mechanisms, and PTSD. Skills to counter and deal with these emotional issues are warranted.

Policies and Procedures

Many of the participants were unaware of any joint policies or procedures that govern their disaster responses. This information must be added to their professional training. The need for succinct disaster response policies and procedures was identified in 1996 following a response to Hurricane Andrew. However, these important documents are still lacking. Military units join the civilian communities and organizations during

disaster relief. Numerous non-governmental organizations have developed policies, plans, and procedures to facilitate a fluid response. Adopting and adapting their response policies and procedures to military assets would be appropriate and save numerous hours in recreating these plans.

Disaster Specific Training

Considering the number of annual disasters, military nurses are apt to deploy at any given moment to support their civilian colleagues. Disaster events are more varied than combat. In some ways, these crisis events put military nurses in more hardship than war, as there is less planning for security, supplies, and the possible need for interpreters. The military must begin to plan for these contingencies, as it is a certainty that at some point disaster responses will be needed. Yet, the military does not offer specific training in disaster response. The military knows how to structure training, but those who design military courses must recognize that disaster response is not the same as combat. Therefore, a disaster readiness curriculum needs to be developed then taught to those who are likely to be involved in disasters deployments and/or responses. Since all levels of education preparation, from practical nurse through doctorally prepared nurse are represented in the ranks, this training must be provided to all.

CBRNE is currently the only yearly requirement mandated by military health care facilities. However, this instruction does not prepare the disaster responder to deal with the many different aspects of traumatic events. For example, recognizing and dealing with hazardous materials in a field environment or conducting a vulnerability assessment of the disaster arena. Courses of this nature are imperative to the safety and security of the military members during those chaotic times. Programs relating to disasters ought to

be incorporated into basic and advanced officer courses and then followed by annual refresher classes.

Collaborative Training

Based on discussions in the literature and narratives of the participants, collaborative training is imperative. Civilian and military members triage differently during traumatic times. In a disaster experience, the most help is given to those with the greatest chance of survival. This switch in thinking presents challenges for everyone. Language is another major area requiring collaborative education. The military utilize numerous acronyms not found in the civilian world. This too causes difficulties and can delay effective health responses. All military health care facilities need to coordinate joint exercises and disaster drills with their local civilian counterparts, and non-governmental organizations. These integrated practice scenarios enable the entire community to be better prepared for future disaster responses.

Disaster Documentation

The history of military nurses responding to disasters is practically non-existent. As I was searching the literature for military disaster material, I found a single military nursing study relating to non-combat missions such as humanitarian and disaster relief. A huge piece of our military nursing effort has been lost to history. Most of the information I was able to locate was noted in AARs. As a corps, military nurses must do a better job of documenting the important roles they play in disaster relief. Our civilian counterparts have numerous articles in the literature; some are research while many are personal reflections. All are important to our future. How can military nurses possibly prevent making the same mistakes/errors in the future, if they do not document in nursing

literature what went right and what needs to be changed? Much has been written regarding military nurses' experiences in combat. Disaster response experiences are equally important and need to be added to military literature and to that of nursing knowledge. The world must be made aware of the numerous care hours provided during crises by military nurses and how those efforts have affected the victims of disasters and those who rendered the health care.

Crisis Communication

As noted in this current study, interacting with the media can enhance or deter disaster responses. While it is important for the public to have current information regarding progress of disaster responses and relief efforts, it is even more imperative that accurate information be presented. Numerous remarks were made by the participants regarding what they (the nurses) considered biased reporting of the media. For example, several nurses mentioned they had been falsely portrayed as uncaring and sluggish by the media. In contrast, one participant compared previous interactions with news reporters in a different situation. She described how the media covered the process of moving soldiers from the battlefield to higher levels of medical care. This was reported to be a positive interaction because the nurses' work was not impeded, patient privacy was protected, and their nursing efforts were accurately portrayed. Another participant described his interactions with the media during an earthquake not located within the U. S. noting that the press was respectful of patients and the work nurses were doing. In that instance, military nurses only spoke to or interacted with the media personnel if they were not providing direct patient care. Unfortunately, not all nurses had these favorable interactions.

The time and location of the disaster may have an effect on media coverage and interactions. In two different hurricane disaster responses, the nurses described how they were in the midst of evacuating patients out of harms' way, but the media and other officials did not realize or perhaps care that they were impeding relief efforts. These situations occurred in the middle of airports, and other areas such as convention centers and hospitals. During a capstone exercise in my HSN courses, I experienced similar problems with media personnel. Several times, I informed the news reporter he or she was breaching patient privacy and could not take the pictures. The individual was finally escorted to an area where one person provided information to the reporter regarding response actions.

Positive and negative experiences from the media can be a direct result of time and location during a crisis event. Immediately after a disaster, things are disorganized, the pace is much faster, and emergent care is being provided in areas outside of a hospital facility. Several days following the disaster, relief efforts may have become more coordinated and field hospitals potentially have been established, therefore the hindrance to care perhaps was not as noticeable.

As part of disaster training, scenarios need to be developed that includes civilian media personnel. These exercises should encompass all phases of disaster response from emergent through recovery. The military public affairs officer may not always be present to speak with the media, thus military nurses need training on interfacing and networking with media personnel, transmitting essential health information to the public, and working effectively with dignitaries.

Currently, civilian reporters are imbedded with combat teams to cover the things that are occurring during wartime. Consequently, those individuals have a better understanding of the efforts that are provided. Similarly, as military units deploy to disasters, it is feasible to have a civilian journalist accompany the military unit into the crisis. The joint efforts of civilian and military could potentially project a stronger front during chaotic situations.

Future Research

Future research studies should be directed toward including the experiences of civilian nurses working with military nurses in disaster response. The outcomes of a joint study could lend valuable information to enhance collaborative efforts in the future. Military nurse officers are not the only medical personnel who deploy to disasters. Enlisted medical soldiers accompany them. Therefore, the experience of the enlisted medical personnel is important for a fuller understanding of disaster deployments and should be investigated in future research. As Disaster Management Teams (DMAT) often integrate with military units during crises, a qualitative study regarding DMAT experiences in disaster responses should also be conducted. The outcomes of that study should be compared to the military nurse participants who responded to disasters. This would facilitate identification of similar patterns of concerns and interventions needed to enhance future collaborative disaster responses. Crisis communication had both positive and negative effects during the disaster responses. Exploring the relationship between the military and the media over time, from the Viet Nam conflict to present, particularly during disaster relief is warranted. Coping skills were identified as lacking in this study.

A qualitative study that asks a question regarding the experience of coping in disaster responses should be investigated. Additionally since existential growth emerged as such a strong theme in the research, a qualitative study should be conducted which focuses on existential growth following a disaster. Finally as the military begins to implement education, training, and policy changes relative to disaster, follow-up research will be needed to evaluate their effectiveness.

Summary

This dissertation examined the experience of military nurses experiences in disaster response. No differences in responses were noted between military nurses regardless of branch, rank, location of disasters (foreign or domestic), or type of disaster (natural or man-made) or time since the disaster. Regardless of where the military nurses served, their experiences were the same. Time of disaster response to time of interview had not apparent influence on the information relayed. All narratives were rich in detail.

Five polar themes emerged against the contextual grounds of organized military culture and disaster experience. They were: "Nature of War" versus "Nature of Disaster;" "Known" versus "Unknown;" "Prepared" versus "Chaos;" "Structure" versus "Making Do;" and "Being Strong" versus "Emotionality." The final theme was "Existential Growth." As the participants moved into the disaster arena, they became a cohesive unit, leaning on one another through the hardships and the good times. The bonds that were created still exist today. Many of the nurses indicated this was the first time they had reflected on their disaster experience and considered what it meant to them. The knowledge gained from this study adds to the disaster nursing literature and that of

military studies. Information garnered has relevance to future education, training, and policy.

My Existential Reflection

As I close this journey, I feel like I have come full circle. I began my doctoral education experience as a military nurse seeking to understand the competencies needed to respond to disasters and committed to quantitative research. I also wanted to learn how disaster response courses could compliment my military career. However, I have learned so much more. Through my HSN courses, I began to realize there must be more to disaster response than just competencies. I also realized that my questions could not be answered a simple survey. I was intrigued by what I was learning, but it was not enough. Therefore, I embarked on my trip into the phenomenological world of others; I learned through the voices of the military nurses the essence of disaster response. The nurses who participated in this study taught me that responding to disasters provided them a unique opportunity to learn something about themselves and the people they deploy with into the disaster arena. Even though many things about war and disaster are similar, there also many compelling differences. Participants shared their hearts and souls with me. Often it was the very first time they had spoken of the experience outside of their deployment groups. I will never forget them or their stories.

Now I return to my military career, but much wiser than before. I too have grown, transcended. Thanks to them, I have the tools and knowledge to influence disaster responses for the future.

REFERENCES

Abbott, E. B., & Hetzel, O. J. (2005). *A legal guide to homeland security and emergency management for state and local governments.* Chicago: American Bar Association.

Adams, L. (2007). Mental health needs of disaster volunteers: A plea for awareness. *Perspectives in Psychiatric Care, 43*(1), 52-54.

Allen, M. N., & Jensen, L. (1990). Hermeneutical inquiry: Meaning and scope. *Western Journal of Nursing Research, 12*, 241-253.

Arlington County after-action report on the response to the September 11 terrorist attack on the Pentagon. (2001). Retrieved September 23, 2006, from http://www.co. arlington.va.Us/Departments/Fire/edu/about/docs/after_report.pdf.

Bartow, M. (2003). *Topoff: Preparing our top officials*. Retrieved July 4, 2007, from http://www.ogilvypr.com/case-studies/topoff.cfm

Benthall, J. (1997). The Red Cross and Red Crescent movement and Islamic societies, with special reference to Jordan. *British Journal of Middle Eastern Studies, 24*, 157-177.

Blum, S. (2007). *National Guard 2007 posture statement.* Retrieved July 5, 2007, from http://www.ngb.army.mil/2007%20Posture%20Statement/blum.html

Breisach, E. (1962). *Introduction to modern existentialism.* New York: Grove Press.

Bridges, E. (2003). Military and disaster nursing. *Critical Care Nursing Clinics of North America, 15*, xiii-xiv.

Bombings. (2009). Retrieved March 27, 2009, from http://en.wikipedia.org/wiki /Terrorist_incident#1990

Byrne, M. (2001). Hermeneutics as a methodology for textual analysis. *The Association*

of Perioperative Registered Nurses Journal, *73*, 968-970.

Carroll, D. (1996). *The role of the U.S. Army Medical Department in domestic disaster assistance operation: Lessons learned form Hurricane Andrew*. Retrieved April 7, 2007, from https://secure-ll.amedd.army.mil/Reports/dr04/dr04.htm

Colaizzi, P. (1978). Psychological research as the phenomenologist views it. In R. Valle & M. King (Eds.), *Existential phenomenological alternatives for psychology* (pp. 48-71). New York: Oxford University Press.

Congressional Report. (2006, February). *A failure of initiative: Final report of the select bipartisan committee to investigate the preparation for and response to Hurricane Katrina* (Publication No. H. Rpt. 109-377). Retrieved July 5, 2007, from http://www .gpoaccess.gov/serialset/creports/katrina.html

Connelly, L., & Yoder, L. (2000). Involving qualitative proposals: Common problem areas. *Clinical Nurse Specialist, 14*(2), 69-74.

Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing among five approaches.* (2nd ed.). Thousand Oaks, CA: Sage.

Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches* (2nd ed.). Thousands Oaks, CA: Sage.

Dara, S. I., Ashton, R. W., Farmer, C., & Carlton, P. K. (2005). Worldwide disaster medical response: An historical perspective. *Critical Care Medicine, 33*(1), S2-S6).

Defense Support of Civil Authorities. (2005). Retrieved February 5, 2009, from http://www.usarnorth.org/public/home.cfm?CFID=184330&CFTOKEN=54218839

Department of Defense Dictionary of Military Terms. (2006). Retrieved April 8, 2007, from http://www.dtic.mil/dictionary/jel/doddict/

Denzin, N. K., & Lincoln, Y. S. (Eds.). (2005). *The Sage handbook of qualitative research* (3rd ed.). Thousands Oaks, CA: Sage.

DeWolfe, D. J. (2000). *Training manual: For mental health and human service workers in major disasters* (2nd ed). Washington, DC: Department of Health and Human Services.

Dickerson, S., Jezewski, M., Nelson-Tuttle, C., Shipkey, N., Wilk, N., & Crandall, B. (2002). Nursing at Ground Zero: Experiences during and after September 11, World Trade Center attack. *Journal of the New York Association, 33*(1), 27-33.

Dossey, B. M., Selanders, L. C., Beck, D., & Attewell, A. (2005). *Florence Nightingale today: Healing, leadership, global action.* Silver Springs, MD: American Nurses Association.

Dowling, M. (2004). Hermeneutics: An exploration. *Nurse Researcher, 11*(4), 30-39.

Elleman, B. A. (2007). Wave of hope: Navy's response to the tsunami in northern Indonesia, Retrieved March 1, 2008, from https://www.hsdl.org/homesec /docs/dod/nps32-031907-01.pdf&code=d3fb737cee88df0f3c62d3d65e80f479

Feeley, R. (2005). AAR Hurricane Katrina Yankee Task Force. Retrieved March 1, 2008 from, https://secure-11.amedd.army.mil/Reports/HumanitarianAARs/ Hurricanes/Katrina/AAR-Katrina4.htm

Federal Emergency Management Agency. (FEMA). (2003). Retrieved November 4, 2006, from http://.www.fema.gov/pdf/plan/mitplanning/how7_phase4.pdf

Federal Emergency Management Agency. (FEMA). (2006). Retrieved October 28, 2006,

from http://www.fema.gov

Federal Emergency Management Agency (FEMA). (2008). *Declared Disasters by Year or State*. Retrieved January 25, 2008, from http://www.fema.gov/ news/disaster_ totals_annual.fema

Federal Emergency Management Agency. (2009). *Declared Disasters by Year or State*. Retrieved March 28, 2009, from http://www.fema.gov/news/disaster_ totals_annual.fema

Feller, C. M., & Moore, C. J. (1996). *Highlights in the history of the Army Nurse Corp*. Washington, D.C.: U. S. Army Center of Military History.

Figley, C. R. (Ed.). (1995). *Compassion fatigue: Coping with secondary traumatic stress disorder in those who treat the traumatized*. New York: Brunner-Routledge.

Fitzpatrick, J. (2005). What have you survived? *Archives of Psychiatric Nursing, 19,* 243-244.

Flannery, R. (1994). *Becoming stress resistant: Through the project smart program*. New York: Crossroads.

Frank, D. I., & Karioth, S. P. (2006). Measuring compassion fatigue in public health nurses providing assistance to hurricane victims. *Southern Journal of Nursing Research, 4,* 2-13.

Gadamer, H. G. (1976). *Philosophical hermeneutics* (C. Linge, trans.). Berkeley, CA: University of California Press.

Gilbert, C. (1998). Studying disasters: Changes in the main conceptual tools. In E. L. Quarantelli (Ed.), *What is a disaster* (pp. 11-18)? New York: Routledge.

Grant, W. D., & Secreti, L. (2007). Joint civilian/National Guard casualty exercise

provides model for preparedness training. *Military Medicine, 172*, 806-811.

Hays, J. (1999). *AAR comments from the 86th CSH deployment to EL Salvador (JTF Aguila) from 27 Nov-20 Feb 99*. Retrieved April 7, 2007, from https//secure-ll.amedd.army.mil/Reports/Mitch/86thMith.htm

Heidegger, M. (1927/1962). *Being and time* (J. Macquarrie & E. Robinson, Trans.). San Francisco: Harper & Row.

Hogan, E., Waeckerle, J., Dire, D., & Lillibridge, S. (1999). Emergency department impact of the Oklahoma City Terrorist bombing, *Annals of Emergency Medicine, 34*, 160-167.

Husserl, E. (1910/2006). *The basic problems of phenomenology: From the lectures, winter semester, 1910-1911* (I. Farin & J. Hart, Trans.). Dordrecht, The Netherlands: Springer.

International Committee of the Red Cross. (2004). *From the battle of Solferino to the eve of the First World War*, Retrieved March 27, 2009, from http://www.icrc.org/web/eng/siteeng0.nsf/html/57JNVP

Joinson, C. (1992). Coping with compassion fatigue. *Nursing, 22,* 116-122.

Jordan-Welch, M. (2007). *"Nursing in Hell": Experience of Providing Care to Patients During and After Hurricane Katrina.* Unpublished doctoral thesis, University of Tennessee.

Kierkegaard, S. (1847/1959). *Either/or* (D. Swenson & L. Swenson, Trans.). Garden City, New York: Doubleday.

Komnenich, P., & Feller, C. (1991). Disaster nursing. *Annual Review of Nursing, 9,* 123-134.

Kreps, G. A. (1998). Disaster as systemic event and social catalyst. In E. L. Quarantelli (Ed.), *What is a disaster* (pp. 31-55)? New York: Routledge.

Landesman, L. Y., & Veenema, T. G. (2007). Natural disasters. In T. G. Veenema (Ed.), *Disaster nursing and emergency preparedness for chemical, biological, and radiological terrorism and other hazards* (2nd ed., pp. 327-349). New York: Springer.

Laube, J. (1973). Psychological reactions of nurses in disaster. *Nursing Research, 22*, 343-347.

Lazarus, R., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer.

LeFever, M. A. (2006). Operation LIFELINE After Action Report: Combined disaster assistant center Pakistan, Retrieved March 2, 2008, from https://secure-ll.amedd .army.mil/Reports/HumanitarianAARs/Earthquakes/212th-MASH-AAR-Operation-Lifeline-Pakistan.htm

Littlefield, R., & Quenette, A. (2007). Crisis leadership and Hurricane Katrina: The portrayal of authority by the media in natural disasters. *Journal of Applied Communication Research, 35*(1), 26-47.

Lofgren, S. (2006). *U. S. Army guide to oral history*, Retrieved February 23, 2008, from http://www.history.army.mil/books/oral.htm

Mallison, M. B. (1989). Nurses are hurricane victims, too. *American Journal of Nursing, 89*, 1419.

Margalit, G., Rosen, Y., Tekes-Manova, D., Golan, M., Benedek, P., Levy, Y., Martonovits, G., & Bar-Dayan, Y. (2002). Recommendations for nursing requirements at a field hospital, based on the Israel Defense Forces field

hospital at the earthquake disaster in Turkey - August 1999. *Accident and Emergency Nursing*, *10*(4), 217-220.

Marshall, M. (2007). The next disaster: Are you ready? *Perspectives in Psychiatric Care*, *43*(1), 1-2.

Maslow, A. H. (1943). A theory of human motivation. *Psychological Review*, *50*, 370-396.

Mauney, C. V. (2004). *Navy's role in homeland defense*, Retrieved March 1, 2008, from https://www.hsdl.org/homesec/docs/dod/nps17-081804-04.pdf &code= d3fb737 cee88df0f3c62d3d65e80f479

Meadows, L. M., & Morse, J. M. (2001). Constructing evidence within qualitative research. In J. M. Morse, J. M. Swanson, & A. J. Kuzel (Eds.), *The nature of qualitative evidence* (pp. 187-202). Thousand Oaks, CA: Sage.

Merleau-Ponty, M. (1945/1962). *The phenomenology of perception* (C. Smith, trans.). London: Routledge and Kegan Paul.

Miles, M. S., Demi, A. S., & Mostyn-Aker, P. (1984). Rescue workers' reactions following the Hyatt hotel disaster. *Death Education, 8,* 315-331.

Military Operations Other Than War: Air Force Doctrine Document 2-3. (2000). Retrieved March 1, 2008, from https://www.hsdl.org/ homesec/docs/dtic/ ADA404753.pdf&code=bfac6b3142229916d227dc2fc3471bc6

Moran, D. (2000). *Introduction to phenomenology*. New York: Routledge.

Nacos, B. (2007). Crisis communication: The role of the media. In T. G. Veenema (Ed.),

Disaster nursing and emergency preparedness: For chemical, biological, and radiological terrorism and other hazards (2nd ed., pp119-134). New York: Springer.

National Response Plan. (2004). Retrieved July 5, 2007, from http://www.dhs.gov xlibrary/assets/NRP_FullText.pd

Neal, M. V. (1963). Disaster nursing preparation. Report of a pilot project conducted in four schools of nursing and one hospital nursing service. New York: National League for Nursing. (ERIC Document Reproduction Service No. ED026477)

Nightingale, F. (1860/1969). Notes on nursing. What it is, and what it is not. New York: Dover Publications.

Norman, E. M. (1990). *Women at war: The story of fifty military nurses who served in Vietnam.* Philadelphia: University of Pennsylvania Press.

Office of the Medical History. (2002). *Chief Nurse describes 9/11* response. Retrieved April 7, 2007, from http://history.amedd.army.mil/booksdocs/opnoblegle/ chiefnurse.htm

Pentagon. (2006). *Facts & figures: Overview.* Retrieved October 2, 2006, from http://pentagon.afis.osd.mil/facts.cfm

Polit, D. F., & Beck, C. T. (2004). *Nursing research: Principals and methods* (7th ed.). Philadelphia: Lippincott Williams & Wilkins.

Pollio, H. R., Henley, T., & Thompson, C. B. (1997). *The phenomenology of everyday life.* New York: Cambridge University Press.

Racher, F., & Robinson, S. (2002). Are phenomenology and postpositivism strange

bedfellows? *Western Journal of Nursing Research, 25,* 464-481.

Ray, M. A. (1990). Phenomenological method for nursing. In N. L. Chaska (Ed.), The nursing profession: Turning points (pp. 173-179). St. Louis: Mosby.

Rayner, J. F. (1958). How do nurses behave in disaster? *Nursing Outlook, 6,* 573-576.

Reynolds, B., & Seeger, M. (2005). Crisis and emergency risk communication as an integrative model. *Journal of Health Communication, 10*(1), 43-55.

Robbins, I. (1999). The psychological impact of working in emergencies and the role of debriefing. *Journal of Clinical Nursing, 8,* 263-268.

Rogers, B., & Lawhorn, E. (2007). Occupational and environmental health professionals' response to Hurricanes Katrina and Rita. *American Association of Occupational Health Nurses, 55,* 197-207.

Scheuren, J., Polain, O., Below, R., Guha-Spair, D., & Ponserre, S. (2008). *International strategy for disaster reduction.* Retrieved March 17, 2009, from http://www.emdat.be/Documents/Publications/Annual%20Disaster%20Statistical%Review%202007.pdf

Sonnier, S. (2009). Communication in a disaster. In D. S. Adelman & T. J. Legg, *Disaster nursing: A handbook for practice* (pp. 133-143). Subury, MA: Jones and Bartlett.

Stanford Encyclopedia of Philosophy. (2005). *Hans-George Gadamer*. Retrieved December 6, 2008, from http://plato.stanford.edu/entries/gadamer/

Suserud, B., & Haljamme, H. (1997). Acting at a disaster site: Experiences expressed by Swedish nurses. *Journal of Advanced Nursing, 25*(1), 155-162.

Thomas, S., & Pollio, H. (2002). *Listening to patients: A phenomenological approach to*

nursing research and practice. New York: Springer.

Turner, D. (1998). *The Experience of Chief Nurse in Military Operations Other Than War*. Unpublished doctorial thesis, University of Minnesota.

Ulmer, R., Sellnow, T., & Seeger, M. (2007). *Effective crisis communication: Moving from crisis to opportunity.* Thousand Oaks, CA: Sage.

Uranso, R. J., Fullerton, C. S., Vance, K., & Kao, T. (1999). Posttraumatic stress disorder and identification in disaster workers. *American Journal of Psychiatry, 156*, 353-359.

U. S. Code: Title 5, Section 3331: *Oath of Office*. Retrieved February 21, 2009 from, http://www.ihs.gov/publicinfo/publications/ihsmanual/PersonnelDelegations/19_oaths/3331.htm

Valle, R. S., & Halling, S. (1989). *Existential-phenomenological perspectives in psychology: Exploring the breadth of human experience*. New York: Plenum Press.

van Manen, M. (1990). *Researching lived experience: Human science for an active sensitive pedagogy*. New York: State University New York Press.

Veenema, T. G. (2007). Essentials of disaster planning. In T. G. Veenema (Ed.), *Disaster nursing and emergency preparedness for chemical, biological, and radiological terrorism and other hazards* (2nd ed., pp. 3-24). New York: Springer.

Wang, D., Sava, J., Sample, G., & Jordan, M. (2005). The Pentagon and 9/11. *Critical Care Medicine*, *33*(1), (Suppl.) S42-S47.

Whaley, M. (1991). When disaster strikes: The role of the employee health nurse. *Hospital Employee Health,* 11-13.

Whall, A. L., YunHee, S., Colling, K. B. (1999). A Nightingale-Based model for dementia care and its relevance for Korean nursing. *Nursing Science Quarterly, 12*, 319-323.

World Health Organization. (2002). *Health Topics*. Retrieved June 11, 2007, from http://who.int/health_topics/en

Wyatt, C. S. (2008). *The existential primer.* Retrieved March 31, 2008, from http://www.tameri.com/csw/exixt/kieregaard.shtml

Yalom, I. D. (1980). *Existential psychotherapy*. New York: Basic Books.

Yoder L., & Brunken, S. (2003). Peacemaking/ peacekeeping missions: Role of the U.S. Army nurse. *Critical Care Nursing Clinic of North America, 15,* 265-273.

Zamarripa, V. (2003). International trauma and disaster management. *Critical Care* Nursing Clinics of North America, 15, 275-281.

APPENDICES

Appendix A

Information for Anyone Interested in Participating in a Research Study

Military Nurses' Experiences in Disaster Response

WHAT: A research study seeking to understand the lived experience of military nurses who have responded to a disaster during their military service.

WHY: Disasters occur almost on a daily basis around the world. Over the last decade, 577 natural disasters have occurred in the United States (U.S.) and it territories with 47 disasters transpiring since the beginning of 2006 (FEMA, 2006). Furthermore, disasters are increasing in intensity and scope, resulting devastation is greater, and this demands longer duration of response for military nurse responders, and therefore increases stress. Meeting basic human needs during crises is a critical concern.

Historically, nurses have been present during crisis events to render care to those injured. Often times, the nurses are military.

The voices of military nurses who respond to a disaster will be heard through this research. This research will gather accurate information and the expert perspective to facilitate improved preparation for disaster response, and to enable the military to care better for its own. The findings will assist military nurses in future preparations for responding to a crisis event.

WHO CAN PARTICIPATE:

All military nurses officers who share the following characteristics:

- have in the past responded to one or more disaster events during their military service
- speak English
- be willing to share their story
- able to recall and discuss their disaster experiences.

Military respondents can be from any branch of service including Army, Navy, Air Force, National Guard, or U. S. Public Health Service, and may been either active duty, or reservists at the time they responded to the disaster.

WHERE: Interviews lasting approximately 60-90 minutes in the participants' own homes, or at a place and time which is mutually agreed upon by participant and interviewer. Interviews will be digitally recorded and confidential.

WHEN: Beginning July 2009

HOW: Email the investigator at frivers@utk.edu. Felecia Rivers, the Principal Investigator, will respond to your message as quickly as possible to answer your questions and discuss the study in more detail. Requesting information does not obligate the potential participant in any way.

Appendix B

Informed Consent Statement

"Military Nurses' Experiences in Disaster Response."

In signing this consent form, I am saying that I talked with the principal investigator, Felecia Rivers, a doctoral student at the University of Tennessee College of Nursing, about her research study to investigate military nurses' experience in disaster response. ***Disaster*** **is as any non-combat mission—humanitarian relief, or response to a catastrophic natural or human-made event—outside of warfare, to which military nurses are deployed.**

I understand that the purpose of this research study is to understand the essence of military nurses lived experiences in responding to a disaster. Findings from the research will allow the nurse participants' experiences, knowledge, and lessons learned to be incorporated into training and support for military nurses who participate in future disaster events.

I understand, as the research participant, I will share my disaster response experiences during a digitally recorded confidential interview lasting approximately 60 to 90 minutes. The interview will take place at a location of my choice, and will end when I have nothing more to say. Digital recordings will be hand carried to a professional transcriber for transcription. The transcriptionist will sign a pledge of confidentiality and be instructed to place the digital recordings on a secure drive, which will be maintained in a locked file. Additionally, the transcriptionist will be instructed to replace any identifying information such as names, cities, work sites with pseudonyms. Identity of participants will not be revealed to anyone, at any time, for any reason other than that which is required by law. The transcripts (without identifiers) may be reviewed by members of a research group, which meets at the University of Tennessee College of Nursing. Members of the group will also sign a pledge of confidentiality. When the researcher presents or publishes the findings, no identifying information will be used. Digital recordings, but not transcripts, will be destroyed upon completion of the dissertation defense. Transcripts will be retained indefinitely, stored in a locked file in the researcher's office, to be used in future disaster-related research with nurses. These measures are to ensure my confidentially as a research participant.

I understand the primary risk from this research is that I may become emotionally upset when I recall particular experiences that were upsetting or stressful to me. If I become upset and want to end my participation, I only need to tell the researcher, and the interview will end immediately. At that point I can choose whether to allow my interview to that point to be used, or destroyed. If I want it destroyed, it will be erased in my presence.

The sharing of my experiences may be beneficial to me since I will be discussing the disaster response with someone who cares and wants to listen. Other possible benefits from participation are that my story could provide critical information to assist the military in providing improved training and support to nurses who respond to disasters in the future. No incentives or payment has been given to me for my participation.

_____

Initials

I understand I am free to ask questions at any time or to change my mind about participating in the research study. If any time, I have questions about the research study, I can contact the principal investigator, Felecia Rivers, MSN, RN via email: frivers@utk.edu. Additionally, I may contact Dr Susan Speraw, Ph.D., RN, the dissertation advisor at the University of Tennessee College of Nursing, 1200 Volunteer Blvd, Knoxville, TN 37996-4180; phone: 865-974-7586, or email: ssperaw@utk.edu. If I decide to stop my participation, it will not affect me or my status in any way. Any information about me will be kept in confidence according to current legal requirements, and will not be revealed to anyone unless required by law. If I have any questions about my rights as a participant, I can contact the Research Compliance Office at 865-974-3466.

_____

I understand what has been explained to me. If I would like a copy of the findings of the research study, I need to initial the yes block below and provide contact information.

Yes _____

Preferred Contact Address: (Please Print Clearly)

The purpose of this research and what I am being asked to do have been explained to me and my questions have been answered.

Participant Signature: _____ Date: _____

Should feel you the need for mental health assistance in the future, please contact mental health services at the military installation closest to your duty assignment. Should you wish not to utilize the military installation facilities, the following toll free hotline numbers are provided for your convenience:

Hotline Numbers: 1- (877) 877-3647 – Military Mental Health Hotline

1- (888) 826 9538 – National Institute of Mental Health

1 (800) 447-4474 – Mental Health InfoSource

Appendix C

Demographic Data Sheet

Current Age: _____ **Current Military Status:** ___ Active Duty

Gender: ____ Male ____ Female ___ Reserve

Current Education Level: ___ ADN ___ Diploma ___ National Guard

___ BSN ___ MSN ___ Retired

___ PhD ___ USPHS*****

If you are or were military, in which branch? _____

If you are or were military, how long were you a member? _____

ALL QUESTIONS BELOW THIS LINE REFER TO YOUR STATUS OR EXPERIENCE AT THE TIME OF YOUR DISASTER RESPONSE

- As a member of the military, what was your rank at the time of your disaster response(s)_____
- Site(s) of Disaster response(s) (list all):
- Please complete the following table:

Disaster Year	How long were you deployed	Education Level at the time	Age at the time	Years in Nursing at the time

- Did you have the opportunity to work with civilian nurse responders?

  Yes ___ No___

- Area of clinical specialty: _____

***** U.S. Public Health Service

Appendix D

Research Committee Pledge of Confidentiality

As a member of the Research Committee, I understand that I will be reading transcriptions of confidential interviews of the study "Military Nurses' Experiences in Disaster Response." The information in these transcripts has been revealed by research participants who participated in this research study on good faith that their interviews would remain strictly confidential. I understand that I have a responsibility to honor this confidentially agreement. I hereby agree not to share any information in these transcriptions with anyone except the primary investigator, Felecia Rivers, MSN, RN, of this project, or his/her doctoral committee. Any violation of this agreement would constitute a serious breach of ethical standards, and I pledge not to do so.

_____ _____

Research Committee Member Date

Appendix E

Interdisciplinary Phenomenology Research Group Pledge of Confidentiality

As a member of the Interdisciplinary Research Phenomenology group, I understand that I will be reading transcriptions of confidential interviews of the study "Military Nurses' Experiences in Disaster Response." The information in these transcripts has been revealed by research participants who participated in this research study on good faith that their interviews would remain strictly confidential. I understand that I have a responsibility to honor this confidentially agreement. I hereby agree not to share any information in these transcriptions with anyone except the primary investigator, Felecia Rivers, MSN, RN, of this project, his/her doctoral chair, or other members group. Any violation of this agreement would constitute a serious breach of ethical standards, and I pledge not to do so.

_____ _____

Interdisciplinary Phenomenology Research Group Member

Date

Appendix F

Transcriber's Pledge of Confidentiality

As a transcribing typist of this research project, "Military Nurses' Experiences in Disaster Response," I understand that I will be hearing tapes of confidential interviews. The information on these tapes has been revealed by research participants who participated in this project on good faith that their interviews would remain strictly confidential. I understand that I have a responsibility to honor this confidentially agreement. I hereby agree not to share any information on these tapes with anyone except the primary investigator, Felecia Rivers, MSN, RN, of this project. Any violation of this agreement would constitute a serious breach of ethical standards, and I pledge not to do so.

_____ _____

Transcribing Typist Date

VITA

Felecia Marie Rivers was born in Montgomery, AL on March 20, 1954. She was raised and lived in the same neighborhood until she entered the military. Felecia graduated from Robert E. Lee High School in 1972. She attended Trenholm Technical College graduating as a Licensed Practical Nurse in 1979. Felecia entered United States Army in 1985. During her tenure in the Army, Felecia graduated from the University of Maryland, European Campus, earning an Associate of Arts in 1993. Continuing her education, Felecia graduated from East Tennessee State University, Johnson City, TN, earning her Bachelors Degree in Nursing, December 1994. January 1995, she was commissioned as a 2nd Lieutenant in the Army Nurse Corps. In 1997, Felecia graduated from Central Michigan University earning a Master of Science in Administration with a concentration in Health Services Administration. Returning to college in 2001, Felecia graduated from The University of Tennessee, Chattanooga, in 2003 with a Masters of Science in Nursing with a concentration in Nursing Education and a certificate in Health care Informatics. She has held numerous positions in the nursing field within both the civilian and military sector. Her last military position was the Chief Nurse of the Katterbach Health Clinic, Katterbach, Germany. Felecia has presented at both national and international conferences. She is a member of Phi Kappa Phi, Sigma Theta Tau, Who's Who Among Students in American Universities and Colleges, Tennessee Nursing Association, American Nursing Association, and Women in the Military Association. She currently has 24 years of active duty service and will be assigned to serve in a military research department. Felecia received her Doctor of Philosophy in Nursing with a

concentration in Homeland Security from The University of Tennessee, Knoxville in May 2009.